

THE WAKANDA FILES

A TECHNOLOGICAL EXPLORATION
OF THE AVENGERS AND BEYOND

INCLUDES
CONTENT
FROM
22 MOVIES OF
MARVEL STUDIOS



THE WAKANDA FILES

A TECHNOLOGICAL EXPLORATION OF THE AVENGERS AND BEYOND



SHURI-KIMOYO DICTATION

AUDIO-VIDEO FILE ID#: 753-18_PS_RHINO_LN.wav

FILED UNDER: ADVANCED TECHNOLOGICAL R&D>RHINO
CHARGE>HEART SHAPED_HERB

TRANSCRIPTION OF AUDIO:

How should I begin this . . . ? All right . . . I am creating this new initiative because there is potential for great advancements. Change opens opportunity, an opportunity for improvement. Bast willing, we will be able to complete this research before it is too late.

[Pause.]

That is ominous, Shuri. Goodness. But the change and opportunity bit is true. Any good scientist knows there is always room to learn and improve.

[Pause.]

Wakanda is and always has been strong. For generations, we have thrived. But what has worked for us in the past can always be improved upon. What has worked for life outside Wakanda must certainly be improved upon. We, as Wakandans, have a responsibility to them. Even if they are like hapless fawns lost in the forest. Yet still, their science can be inspiring. Stark, Banner, and many others have all made some fascinating advancements and innovations. Just like Wakanda can lead the world to peace and prosperity, we can bring our planet to the forefront of technology and innovation. Together we are capable of great things.

[Pause.]

We are on the precipice of a revolution larger than the jump from analog to digital. For the sake of the greater good, we must explore everything. Which technologies and advancements that have come from our past and our present can inform our future? What tools do we have? What weapons are available? What defensive systems can we achieve? Why are they still driving automobiles with rubber tires? We will need to commission the Advanced Sciences and Technologies group to scour the archives and pull together the data we have collected, the reports from our War Dogs throughout history. As Baba often said, "The highest bird sees all."

But first, food. Mark follow-up action items from dictation and add reminder to put in research and archival requests at seven a.m. tomorrow.

*Note both tasks completed and review
of compiled documents is underway.
-Shuri*



01 | HUMAN ENHANCEMENT



WAKANDA ROYAL ARCHIVES

ADVANCED SCIENCES AND TECHNOLOGIES RESEARCH REQUEST FORM

DIRECTIVE:

Gather all intelligence reports, documentation, acquired files, news articles, and any other archival materials related to human enhancement for review.

REQUEST CONTACT:

Shuri, Head of Science and Technological Development

INITIATIVE, CLEARANCE, AND CLASSIFICATION CODE:

RHINO CHARGE [ENCRYPTED THUMBPRINT PROVIDED]



DATE NEEDED:

ASAP

ARCHIVIST NOTES:

We have gathered all requested assets on human enhancement, both technological and biological, as well as armor prosthesis applications. The files have been transferred to your encrypted SSD for access via sand table, but per your request, here follows physical copies of the collected documents.

Materials pulled from the following:

- Wakanda Historic Archives
- Public records and media outlets
- War Dog Files: Hydra
- War Dog Files: Stark Industries
- War Dog Files: SSR/S.H.I.E.L.D. (highest clearance)
- War Dog Files: Hammer Industries
- War Dog Files: AIM
- War Dog Files: CIA

This list is a sign of Wakanda's commitment to gathering and studying technology from around the world. We hope any improvements to their advancements can benefit all.

Please note that we are unable to provide physical copies of the records that have been classified by intelligence or by order of the King himself. Those records are only available through your digital interface.

We will continue to monitor and collect information as developments occur. If additional material is required, or a specific document is missing, please contact any of us in the archives and we will have it pulled and added to this collection as soon as possible.

DOCUMENT

32221-REQ



THE HEART-SHAPED HERB

HE OR SHE WHO CONSUMES THE HEART-SHAPED HERB BECOMES THE BLACK PANTHER. THROUGH A RITUAL THAT HAS EXISTED FOR GENERATIONS, FRUIT FROM THE FLOWER IS OFFERED TO ONE WHO IS WORTHY TO CLAIM THE MANTLE. ONCE THE FLOWER'S ESSENCE IS INGESTED, THE BLACK PANTHER IS TRANSPORTED TO THE ANCESTRAL PLANE AND GRANTED THE SPEED, RESILIENCE, AGILITY, INSTINCTIVE AWARENESS, ENDURANCE, AND STRENGTH OF THE PANTHER.

The herb is ground with a mortar and pestle into a paste before it is ingested. Once it's consumed it causes intense physical trauma and pain, which may explain the ingestor's ability to reach the ancestral plane.

SHURI-KIMOYO DICTATION

AUDIO-VIDEO FILE ID#: 753-19_PS_RHINO_LN.wav**FILED UNDER:** ADVANCED TECHNOLOGICAL R&D>RHINO CHARGE>
HEART SHAPED_HERB**TRANSCRIPTION OF AUDIO:**

The heart-shaped herb gives the Black Panther his strength and makes him a match for any adversary. But, as we have observed, if the flower is depleted or destroyed, the king can be left vulnerable. Perhaps with this exploration of our past, the elders will finally allow a full spectral and biological analysis of the heart-shaped herb and the fluid it produces.

[Pause.]

How many times do I have to tell you: stop eating in my lab! The nerve of [inaudible] . . .

[Pause.]

It is most fortunate Nakia was able to recover a sample of the herb before our supply was burned. However, access to study the herb is now even more difficult and thus artificial synthesis, or at least the creation of a serum possessing all the herb's traditional advantages, is necessary, not just for my brother but for Wakanda's future. It would seem that starting with a natural base would be the proper course of action. However, having witnessed the effects of naturally-occurring stimulants like caffeine and steroids on the body, I'd quite like to avoid nasty side effects if at all possible . . . Perhaps taking a natural baseline and enhancing it using vibranium could balance any effects. Even naturally-occurring amino acids? But until I can fully study the original herb, which at this point might be impossible, it will be a difficult task. With some coercion, my brother might allow me to run blood work. Or at least a biological spectral analysis while he is influenced by the serum for further examination.





FILES PERTAINING TO: JOHANN SCHMIDT/RED SKULL

SHURI-KIMOYO DICTATION

AUDIO-VIDEO FILE ID#: 753-19_PS_RHINO_LN.wav

FILED UNDER: ADVANCED TECHNOLOGICAL R&D>RHINO CHARGE>HEART SHAPED_
HERB

TRANSCRIPTION OF AUDIO:

If we are to synthesize, and by process improve upon, an ancient Wakandan herb, we must first study supplementation where others have tried and succeeded. And also, where they have failed. By examining the Super-Soldier Serum trials of Erskine, Banner, and others, we may learn from their attempts to enhance the human condition. I am certain their methods may shed some light on potential improvements.

Erskine in particular engineered a most fascinating creation. Under duress, he created a prototype serum administered to the head of Hydra, Johann Schmidt. Beginning with that first human trial will better our understanding of Erskine's process and advancements. Rogers has spoken at great lengths about Schmidt's power, and his mania, as a cautionary tale. Such caution as a starting place will have great advantages. The physical and psychological effects of Erskine's formula on Schmidt are . . . significant. Like many drug trials, there was no possible way Erskine could have predetermined the risk or the toxicity of his creation.

Telegramm

Deutsche Reichspost

Nr.

Aufgenommen

Tag: Monat: Jahr: Zeit:

von: AUSGEF durch:

Amt: 78

BRANDENBURG F 42/40 6.7. 1658

Übermittelt

Tag: Zeit:

an: 6.7.42



VOM: OBERSALZBERG

J. SCHMIDT:

THE BAVARIAN ERSKINE CONTINUES TO BE UNCOOPERATIVE. ADDITIONAL COERCION IS NECESSARY. HE RESISTS SUPPORTING THE PARTY. IT IS FEARED HE WILL FALL UNDER PROTECTION OF EXTREMISTS. WE HAVE RECEIVED WORD HE INTENDS TO DEFECT TO GENEVA WITH HIS WIFE AND TWO CHILDREN. THE FÜHRER COMMANDS IMMEDIATE ACTION. IT IS VITAL THAT ERSKINE'S RESEARCH CONTINUES FOR THE BETTERMENT AND STRENGTHENING OF OUR CAUSE. YOUR TASK IS TO SUPERVISE AND OBSERVE TO ENSURE ERSKINE'S SUCCESS BY ANY MEANS NECESSARY. THIS INCLUDES TRANSFERRING HIM TO BERLIN. WITH OR WITHOUT HIS FAMILY. CONSIDER THIS OF THE HIGHEST PRIORITY.

MUELLER



UNITED STATES OF AMERICA

STRATEGIC HOMELAND INTERVENTION ENFORCEMENT LOGISTICS DIVISION

CONFIDENTIAL

SELECT JUDICIARY SUBCOMMITTEE TESTIMONIAL

SUBJECT: JOHANN SCHMIDT, A.K.A. THE RED SKULL
TESTIMONY OF: S.S.R., CARTER, PEGGY
COPIES TO: ORIGINAL ONLY

Based upon my observations of Johann Schmidt, a.k.a. the Red Skull, his capabilities and temperament made him a dangerous man. The world was in grave danger as long as Schmidt walked upon it. His army, better described as his disciples, believed him invincible. Mercifully, that was not the case.

Schmidt voluntarily and prematurely exposed himself to a prototype of Dr. Erskine's formula. The result gave Schmidt the strength of ten men, or more. His resilience and endurance were chemically enhanced. However, there were extreme side effects. The scarification that occurred, including the burning away of the skin and tissue surrounding his skull and nasal cavity, left an unpleasant red scab. He chose to cover the disfiguration with a prosthetic. From what little I was able to gather from Erskine before his passing, the inflammatory response of the skin was likely due to the burning of cellular tissue during the transformation of muscular fibers.

Another documented side effect of Erskine's serum was the magnification or amplification of personality traits and desires. He was still determining the exact cause at the time of his death, but he believed it to be a psychological response to elevated hormone levels. "Good becomes great, bad becomes worse," he would tell us in searching for Project Rebirth candidates.

Schmidt was convinced there was a power left by the gods here on Earth waiting to be utilized by a superior man. According to Dr. Arnim Zola upon his capture, Schmidt believed himself to be that man.



SHURI-KIMOYO DICTATION

AUDIO-VIDEO FILE ID#: 753-20_PS_RHINO_LN.wav

FILED UNDER: ADVANCED TECHNOLOGICAL R&D>RHINO CHARGE>SERUM_
SYNTHESIS_02

TRANSCRIPTION OF AUDIO:


Vita-Rays? For what? To activate the cellular transformation? Or to stimulate the cells for absorption? But then why would the radiation be administered after the injection? The risk of damage or liquefaction of the cells via radiotherapy is high. The wrong combination of radiation and serum could have harmed more tissue than it benefitted. Is that where Schmidt's procedure went wrong?

We must further research Erskine's formula. Though, as it has not successfully been replicated to this day, there must be a variable that remains unaccounted for. Didn't Stark mention the Tesseract emitted trace amounts of gamma radiation? Curious.

Telegramm

Deutsche Reichspost

Nr.

Aufgenommen				BERLIN F 42/40 6.7. 1658		Übermittelt	
Tag:	Monat:	Jahr:	Zeit:			Tag:	Zeit:
von: AUSGEF						an: 	
durch:							
Amt: 85							

TO: OBERGRUPPENFÜHRER MUELLER
FROM: J. SCHMIDT

I WILL BE IGNORED NO LONGER. I NEED RESOURCES. I NEED MEN. AND I NEED FACILITIES. THE FÜHRER CAN DIG FOR TRINKETS IN CAIRO ALL HE WANTS, BUT IF WE ARE TO BEND OUR ENEMIES TO OUR WILL, MY RESEARCH SURROUNDING THE TESSERACT IS TANTAMOUNT. THE FUTURE OF THE REICH IS QUITE CLEAR. WE HAVE HARNESSSED THE POWER OF THE GODS. MIGHT THE GODS HAVE LEFT SIMILAR EXTRAORDINARY ARTIFACTS ON OUR EARTH? WE MUST DOUBLE OUR EFFORTS. IF I DO NOT HAVE THE FULL SUPPORT OF OUR FORCES, THEN PERHAPS IT IS TIME FOR US TO PART WAYS. I WILL TAKE WHAT IS RIGHTFULLY MINE.

MESSAGE ENDS.

Aufgenommen			
Tag:	Monat:	Jahr:	Zeit:
von: BRANDENBURG Y			
durch: 38/46			
Amt: 80			

Deutsche Reichspost

Telegramm

Übermittelt			
Tag:	Monat:	Jahr:	Zeit:
an: 			
Nr. 0245			

VOM: OBERSALZBERG
DOKTOR ZOLA

THE FÜHRER GENEROUSLY PROVIDED HYDRA FUNDING AND RESOURCES AND EXPECTED ONLY WEAPONS IN RETURN. AND NOW SCHMIDT DARES SEND ME THREATENING MESSAGES? HE HAS NOT ONLY FAILED ON DELIVERING THE PROMISE OF WEAPONS BUT, ACCORDING TO YOUR REPORT, HAS SHOWN SIGNS OF MADNESS. THE SO-CALLED RED SKULL HAS BEEN INDULGED LONG ENOUGH. AN INQUISITION TEAM HAS BEEN DISPATCHED TO SEE PROGRESS. IF RESULTS ARE UNSATISFACTORY, FURTHER ACTION WILL BE NECESSARY.

MUELLER

Tag: Monat: Jahr: Zeit:						an: 	
von: AUSGEF							
durch:							
Amt: 85							

DOKTOR

NOW THAT I POSSESS THE TESSERACT, OUR FUTURE IS UPON US. MIGHT THE GODS HAVE LEFT OTHER EXTRAORDINARY ARTIFACTS ON OUR EARTH? SURELY, THIS ARTIFACT CANNOT BE ONE OF A KIND. I MUST HAVE THEM. NO MATTER THE COST. WE CAN NO LONGER BE HELD BACK BY THE INSIGNIFICANT DISAGREEMENTS OF MERE MEN.

SCHMIDT



UNITED STATES OF AMERICA

STRATEGIC HOMELAND INTERVENTION ENFORCEMENT LOGISTICS DIVISION

SSR MISSING PERSON UNIT

FILING FOR: SCHMIDT, JOHANN A.K.A THE RED SKULL

Head of Nazi special weapons division, Hydra, Johann Schmidt has been reported missing in action during a combat-mission incident. In this the same event, Captain Steve Rogers has gone missing and is similarly presumed dead (see redundant file attached to this report).

Allied forces conducted a raid on a Hydra stronghold based on credible intelligence on Schmidt's subversive plot to destroy major world cities and their populace. According to witness testimony from Agent Carter and Col. Phillips, Rogers boarded the Hydra prototype aircraft, known as the Valkyrie, as it fled the location. Schmidt was in command of the craft. There was an altercation onboard.

A brief radio transmission between Rogers and Agent Carter divulged that Rogers was successful in incapacitating Schmidt. However, it is unclear what happened to Schmidt at this time. Rogers was unable to regain full control of the craft. The aircraft crash-landed somewhere within the Arctic Circle.

All other information on this incident has been CLASSIFIED until further notice.



UNITED STATES OF AMERICA

STRATEGIC HOMELAND INTERVENTION ENFORCEMENT LOGISTICS DIVISION

SSR CASE FILE - CASE CLOSING TENDER

SUBMITTED BY: Carter, Peggy

With the conclusion of my testimony before the committee, its findings, and the completion and filing of missing persons reports, it is my recommendation that all case files related to this incident be closed. In Schmidt's absence, Hydra is in a state of disorganization. If not complete dissolve.

Closing all files will not only bring these matters to an end, but afford much needed resolution for those with close ties to these events.

JOHANN SCHMIDT/RED SKULL



UNITED STATES OF AMERICA

STRATEGIC HOMELAND INTERVENTION ENFORCEMENT LOGISTICS DIVISION

WRITTEN PREPARED SPEECH FOR COLONEL CHESTER PHILLIPS'S PROPOSAL TO SENATOR BRANT, "PROJECT REBIRTH"

S.S.R. FILE: PR-921

CC: CARTER, PEGGY

Patton said, "Wars may be fought with weapons, but they are won by men." Why is it that our weaponry can progress, but our men cannot? How come the B-17 can hold enough explosives to blow up an entire city, but one of my men can barely muster a hundred push-ups? That is what we hope to change through the proposed program. We'll usher warfare and the protection of the United States of America into the next century by giving our GIs a necessary upgrade.

As you know, following his extraction, we at the S.S.R. have acquired the services of one Dr. Abraham Erskine. It's clear that the enemy is working on their own boost. Senator, I tell you there are only two things on God's green Earth that terrify me: combat rations and souped-up Nazi soldiers knocking on Texas's doorstep.

Erskine's research holds the key to our future. His serum is ready for human trials. But we can't just pump this special sauce into any good ol' boy. This is a new breed of soldier. We must be selective.

I can get the process started using Camp Lehigh. Lord knows it has enough open space and dirt to weed out the runts. We need resources. We need men. And it's all got to be under lock and key so the Germans don't smell a thing. And to achieve all of this, Senator, I know what you're thinking: yes, we need your money.

We request the funding and the support of the United States in our endeavors. We respectfully hope that you see eye to eye.



PHYSICAL EXAM SHEET
U.S. ARMY



S.S.R. MEDICAL REPORT — FOLLOW-UP
SUPPLEMENTARY REPORT TO CASE STUDY BC283-33

Surname: ROGERS First Name(s): STEVE
Unit No: _____ Rank: _____
Address: 14047 Brooklyn Street, Brooklyn, NY
Nearest Kin: N/A Relation: N/A
Address: N/A

PERSONAL DETAILS

D.O.B.: July 4, 1918
Height: 5'4" Weight: 95 lbs
Eye Color: Blue Hair Color: Light Brown
Temperature: 98.6 Pulse: 87 bps

EYESIGHT:

R 15/20
L 14/20



Col. Phillips,

I've found him. A perfect candidate for the trials. Found at the cockamamie World's Fair Replacement Exposition, if you can believe it. He has tried to enlist multiple times becuase he wants to make a difference. Admittedly, he is not the perfect soldier. But he has potential to be a great man. I have approved him I-A for service. Is it possible to get him into basic training at Lehigh and fitness exams as soon as possible?

Abraham



UNITED STATES OF AMERICA

STRATEGIC HOMELAND INTERVENTION ENFORCEMENT LOGISTICS DIVISION

MEDICAL AND PSYCHOLOGICAL EVALUATION

S.S.R. MEDICAL REPORT -- FOLLOW-UP
 SUPPLEMENTARY REPORT TO CASE STUDY BC283-33
 CONDUCTED: June 24, 1943



Name: ROGERS, STEVEN G.
 D.O.B.: July 4th, 1918
 Height: Natural: 5'4" Post-Procedure: [REDACTED]
 Weight: Natural: 95 lbs Post-Procedure: [REDACTED]

POST-PROCEDURE NOTES:

For written record, a brief description of the procedure. (As instructed, elements remain omitted for classified reasons.) Our staff administered penicillin and then Erskine's formula to the patient. Rogers was placed into a capsule or radiation chamber presumably to focus and reflect radiation. Under the direction of Howard Stark, the patient was saturated with Vita-Rays to stimulate growth. An exposure level of 100% saturation before a full system shutdown completed the transformation.

The physical transformation of Rogers was immediately evident upon opening the chamber. His height and muscle mass had increased. His overall demeanor, posture, and build were completely refurbished.

After an extensive physical exam, it was clear the changes went beyond just the visible. Rogers's metabolism now burns four times faster than the average male of his age and build. Average basal metabolic rate (BMR) operates on 1,800 calories. We estimated Rogers burns an average of 7,650 calories daily, resting. Considering the amount of physical activity in which he participates on a daily basis, his required caloric intake is immense.

Of sheer strength, Rogers has the ability to bench-press several tons. With his endurance and his agility, we estimate he'd be able to comfortably run thirteen miles in thirty minutes. Considering the patient was asthmatic twenty-four hours previous, his lung capacity and efficiency are astounding.

Mentally, his memory is near-photographic. His real-time analyzation and strategic planning ability are unmatched.

- page 1 of 2 -

- page 2 of 2 -

SUMMARY NOTES:

Steve Rogers's metamorphosis is unlike anything observed in modern medicine. Rogers's previously debilitating physical ailments have been alleviated. Dr. Erskine's serum promoted muscular growth and development. It enhanced and strengthened his immune system. The serum also promoted change on a cellular level, creating a protective system of regeneration and healing. This is not just a Super-Soldier Serum. This could be the cure to a variety of diseases and have untold potential.



SHURI-KIMOYO DICTATION

AUDIO-VIDEO FILE ID#: 753-21_PS_RHINO_LN.wav

FILED UNDER: ADVANCED TECHNOLOGICAL R&D>RHINO CHARGE>REBIRTH_PROJECT

TRANSCRIPTION OF AUDIO:

I find it astounding Erskine latched on to targeted genome alteration and editing nearly fifty years before we discovered the role of CRISPR mechanisms. Either in their general functionality or their role in immunity in our bodies. Somehow, Erskine developed a serum that identified interference or breaks in the DNA and used it as a universal application to insert new genetic code into Rogers. And not just that, but to give him a little boost. Vita-Ray-activated chicken soup.

A STAR-SPANGLED MAN WITH A PLAN REVEALED!



BY P. HORNBUCKLE

You may have watched Captain America on his infamous USO tour of the front lines. Or seen him promoting buying war bonds. It's also possible that you've heard the lovely ladies sing his theme tune on the radio, or seen him in the pages of the wildly popular comic books. But did you know that Captain America is a real, flesh-and-blood hero? Neither did we until news and images came back from the front showing Captain America fighting alongside the 107th. *The Examiner* has also learned that, in fact, this hero is the same mystery man responsible for saving a child at

Brooklyn's Pier 13 in June of 1943. That was the beginning of the Captain's tour of duty, during which he saved multiple prisoners of war held captive by the enemy in Krausberg, earning him the Medal for Valor. He was single-handedly responsible for liberating the lives of nearly 400 men who returned home to their loved ones and families. But Captain America is not done. Uncle Sam has given him his own special forces team, and he's taking the fight back to the enemy. With Captain America on the good guys' side, the tides of the war have shifted. Go get 'em, Cap!

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by suitable symbol above or preceding the address.

WESTERN UNION

1201

SYMBOLS

DL=Day Letter

NT=Overnight Telegram

LC=Deferred Cable

NLT=Cable Night Letter

Ship Radiogram

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination.

RECEIVED AT

GOVT. CAMP LEHIGH, WHEATON, NJ 10:48AM JAN 6

GOVT = CONSTITUTION AVE.

PHILLIPS, I AM CONCERNED THAT WITH ERSKINE'S ASSASSINATION THE SUSTAINABILITY OF THE PROJECT HAS DIED. I UNDERSTAND AMPLE AMOUNTS OF BLOOD WERE PULLED FROM ROGERS. ANY HOPE OF ERSKINE'S SECRET IS LOCKED IN THAT GENETIC CODE. HAVE ALL OF THESE SAMPLES BEEN PLACED UNDER STRICT OBSERVATION AND PROTECTION PROTOCOLS?

SEN. BRANDT

THIS COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

CQ CODE TELEGRAPHY

[The page contains several rows of faint, illegible handwritten notes or bleed-through from another document.]

RFS SCHNAPP REPORT. 1200 HOURS. ARCTIC CIRCLE ROUTE. LARGE CRAFT IN ICE. APPEARS EMBEDDED FOR SOME TIME. UNLIKE ANYTHING WE'VE EVER SEEN. SALVAGE WORTHY? ALERT AUTHORITIES? PLEASE ADVISE.

CQ CODE TELEGRAPHY

[illegible]

CALLING CAPTAIN OF VESSEL RFS SCHNAPP. DO NOT ENGAGE VESSEL. VESSEL
AND SURROUNDING ICE DEEMED OFF-LIMITS. AMERICAN ARMED FORCES AND
S.H.I.E.L.D. EN ROUTE.

FILES PERTAINING TO:
WINTER SOLDIER/ZOLA CONDITIONING



RECORD OF SERVICE

BARNES
(Last Name)

JAMES
(First Name)

BUCHANAN "BUCKY"
(Middle Name)

DOB: MARCH 10, 1917

Enlisted: JANUARY 1942

at: BROOKLYN, NY, SGT.

(Location)

(In the grade of)

For service in:

107TH INFANTRY REGIMENT;

SPECIAL OPS: HOWLING COMMANDOS

(Company, regiment, and arm of service)

Training: CAMP MCCOY, WISCONSIN



Date	From	Record of promotion, reduction, transfer, casualty, etc., during active service	Place	Remarks
JUNE 1943	COL. PHILLIPS	SHIPPED OUT	ENGLAND	
JULY 1943	--	POSTED ITALY	AZZANO, ITL	
OCT. 1943	--	CAPTURED BY NAZI HYDRA	AZZANO, ITL	50 MEN CAPTURED IN FAILED MISSION
■■■■	COL. PHILLIPS	RESCUED BY STEVE ROGERS	KRAUSBERG, AUSTRIA	SUFFERED SEVERE TORTURE UNDER ARNIM ZOLA
■■■■	COL. PHILLIPS	REASSIGNED SPECIAL OPS: HOWLING COMMANDOS	--	LONG-RANGE SCOPE ACCURACY 90%
■■■■	--	KILLED IN ACTION	ALPS	SUCCESSFUL MISSION TO CAPTURE ZOLA



UNITED STATES OF A

STRATEGIC HOMELAND INTERVENTION ENFORCE

ARCHIVE

CONTENTS:

ARNIM ZOLA NOTEBOOK ENTRY



I am a prisoner of war. They call it amnesty. I continue to keep these journals in the event they change their minds and someone else must pick up where I left off.

My work continues in secret, though the unindoctrinated agents of the S.S.R. are unaware. In the cold desolation of Siberia, the next Hydra soldier is being born. The Siberian complex has reported that Sergeant Barnes is recovering quite well after falling from the bridge. His injuries were extensive, requiring the amputation of his left arm. But that's easily remedied with advanced cybernetic prosthetics.

Memory reconditioning has shown positive results, despite Barnes's frequent memory flashes of his previous life. We need to erase and condition more often than anticipated. Why memories and emotions continue to seep through, I am uncertain.

My limited time with the Tesseract continues to be inspirational. In reviewing notations and calculations from my studies, the trace amounts of radiation emitted from the device have given me an idea. Radioactivity exposure may be required for the physical enhancement of our subjects.

As my research trial and error continues, Barnes has been placed into cryogenic stasis to prolong his life.

(HYDRA MISSION REPORT)

> MISSION SUCCESS: TARGETS ELIMINATED

FILED: A.P.

VEHICLE BELONGING TO HOWARD AND MARIA STARK WAS FORCED OFF THE ROAD AND INTO A TREE BY OUR OPERATIVE. OPERATIVE WAS ABLE TO MAKE THE CRASH APPEAR AS IF IT WAS AN ACCIDENT; HOWEVER, BOTH SUBJECTS WERE STILL ALIVE FOLLOWING THE IMPACT OF THE AUTOMOBILE. FORCE WAS NECESSARY. POTENTIAL SECURITY CAMERA FOOTAGE CAPTURED. MUST REACQUIRE.

RETRIEVAL OF THE PACKAGE AND RETURN TO BASE WAS SUCCESSFUL. THE REPLICATION OF THE WINTER SOLDIER PROGRAM IS NOW POSSIBLE WITH THE SERUM OBTAINED FROM STARK'S PERSON. HAVE THE FIVE CANDIDATES PREPPED AND DELIVERED TO THE FACILITY AT ONCE.

VOL. CL.

NEW YORK, TUESDAY, DE

Howard and Maria Sta

Allegations Of Foul Play, But Nothing Confirmed

By CHRISTIAN HABERKERN

Howard Stark, founder of Stark Industries, was confirmed dead this morning after suffering massive internal injuries from a fatal car crash. His wife, Maria Stark, was also in the car and confirmed dead at the crash scene as well. A full autopsy and crash investigation will be performed to determine the cause of the crash.

There have been several allegations that there was foul play involved, but these have yet to be confirmed by a reli-

able source. There is still no official statement by Mr. Stark's spokesperson at this time. Several motorists were detained for questioning in connection with the crash, but all have since been released.

"The death of such a brilliant inventor has taken us all by surprise and fills us all with extreme grief for such a tremendous loss. Our thoughts and prayers are with the Stark family during this difficult time," said Howard Stark's business partner, Obadiah Stane. "It all just happened so quickly," one witness said. "There was no time to see how the crash could have been caused." There are other witnesses who report seeing Mr. Stark and his wife just hours before the crash happened.

The car was nearly totaled. It took a wrecking crew several hours to remove





What was this serum that Stark's father had? Where did it come from? And how and why was it successfully implemented into other human subjects?

113



OPERATIVE FIELD REPORT

SUBMITTED VIA ENCRYPTED CHANNELS

My King. I have returned to Oakland following investigation of the crash site. It is obvious there was foul play and valuable property was stolen from Stark. Would you like me to continue investigation?

WINTER SOLDIER/ZOLA CONDITIONING

CEMBER 17, 1991

rk Die in Car Accident



the heavily damaged doors of the vehicle in order to gain access to the victims, who appeared to have died instantly.

Once freed from the wreck, the bodies of Mr. Stark and his wife were quickly taken to the morgue by the coroner's office.

Mr. Stark was an extremely highly regarded businessman and brilliant inventor who changed the face of history with his many inventions.

Howard and Maria Stark are survived by their son, Anthony Stark, who was notified of his parents' car crash early this morning and is cooperating with the authorities. He has not given an official statement on the wreck or his parents' death but is expected to do so as soon as possible.

REVELRY FOR WINTER SOLDIER MENTAL RE-CONDITIONING
[TRANSLATED FROM RUSSIAN.]

REVELRY SHOULD BE UTILIZED AFTER COMPLETION OF
ELECTRO-SHOCK THERAPY.

- LONGING
- RUSTED
- SEVENTEEN
- DAYBREAK
- FURNACE
- NINE
- BENIGN
- HOMECOMING
- ONE
- FREIGHT CAR

FOLLOWING THIS REVELRY, THE SUBJECT SHOULD BE WILLING
TO COMPLY WITH ANY AND ALL MISSION ORDERS AND COMMANDS.
SHOULD ANY RESISTANCE BE MET, IT IS NECESSARY TO KEEP THE
SUBJECT DETAINED AND RE-RUN THE CONDITIONING PROCESS,
FOLLOWING THE REVELRY IN STRICT SEQUENTIAL ORDER.



SHURI-KIMOYO DICTATION

AUDIO-VIDEO FILE ID#: 753-20_PS_RHINO_LN.wav

FILED UNDER: ADVANCED TECHNOLOGICAL R&D>RHINO CHARGE>SERUM_
SYNTHESIS_02

TRANSCRIPTION OF AUDIO:

Ah yes, the White Wolf who arrived on our doorstep. He has been quite the enigma. Seemingly, every time we got a handle on his situation, another issue arose. Luckily, some of the lead work had been done prior to our first meeting. Somehow on his own, he had been able to reconstruct a fair amount of his memory. But there were still fragments of the Hydra programming recessed deep within his subconscious.

We placed him into a cryogenic freeze and ran an MRI and EEG. His limbic system was, and still is, like a Christmas tree on psychotropic drugs. It is a wonder he can recollect anything at all, with the damage done to his hippocampus. His neuro-electric readings show the result of decades of brainwashing and reprogramming. The hubris of Hydra thinking they can have total control of a living and breathing being is astounding.

Culver University



Cellular Biology Department

Project Gamma Pulse

Lead Scientists:

Banner, Bruce & Ross, Elizabeth

Project Status Update:

End of Fiscal Year Grant Requirement

To our mysterious benefactors, this year has been extremely fruitful. As we all know, one of the driving factors for this project was the elimination of malignant brain tumors caused by exposure to radiation. Additionally, we hoped our research could be the long-sought remedy for neurodegenerative diseases. We believe we are ready to move on to human trials. To push our understanding, we need to study the effects of our treatment on the human nervous and circulatory systems. Simulations have shown a 100% effectiveness in resistance to all levels of radiation. In fact, the benefits of the synthesized serum could strengthen the human immune system. Unfortunately, our simulations have been unable to accurately yield results on negating or granting immunity to cancerous tumors of the brain. We lack a patient with radiation exposure to the hippocampus to test our treatment on but are optimistic the results will be satisfactory.



Culver University Press

www.culveruniversitypress.com

CULVER UNIVERSITY'S STUDENT NEWSPAPER

VOL 8 NO.4

Explosion rocks the science lab

Mysterious incident is currently under federal investigation

CULVER UNIVERSITY, VIRGINIA. Students were stunned today to find half of the biosciences building destroyed by a tremendous explosion. The smoke could be seen for miles. Local and federal officials have been on the scene to investigate, but they want to assure the public that there is no immediate danger to faculty or students. Curiously, some eye-witness students

have reported a "green monster" sighted leaving the scene of the explosion. Officials have attributed those sightings as possible effects of a chemical released into the air that is causing hallucinations. If these symptoms have been experienced, they are likely short-term and will not be harmful to your health. If you are experiencing any health issues you feel may be result of the explosion, visit the Office of Biosciences.



SONIC CANNON REQUISITION REQUEST: STARK INDUSTRIES
C.O.: General Thaddeus Ross

S.H.I.E.L.D. in conjunction with the armed forces of the United States require additional firepower to deal with the asset. As evidenced by the encounter with the Hulk in Brazil, conventional weapons are ineffective to bring it into custody. Stark Industries must be requisitioned to create a sonic cannon in hopes of creating a force strong enough to cripple the asset and bring it to its knees.

Director Fury has expressed interest in this technology for use in one of his initiatives as well. It could be of great interest to all parties involved.

STATUS: APPROVED



U.S. FOOD & DRUG ADMINISTRATION

Safety and Consumer Protection Inquiry Possible Customs and Imports Health Violation

Pingo Doce Bottling and Distribution - Porto Verde, Brazil

There has been a probable violation of *Code of Federal Regulations Title 21 (21 CFR § 165.110)* in regards to the allowed levels of contaminants permitted in bottled beverages. A contaminated bottle of Pingo Doce (guarana flavor) was shipped to the United States via Carga Expresso.

Analysis of the contaminant showed presence of the following impurities:

- Human blood
- Trace amounts of unidentifiable radiation

The contaminated beverage was consumed by an elderly man in Milwaukee who is currently being treated for effects of radiation poisoning. Recommendation: full investigation into facility and all exports.



PINGO DOCE®
WITH GUARANA KICK!

AVENGERS HQ

AVENGERS INITIATIVE

BANNER NOTES

TETRODOTOXIN B TRIALS UPDATE



TRIAL WORK ON CONTAINMENT CONTINUES. MY RECENT WORK HAS YIELDED THE CREATION OF AN ANTI-ARRHYTHMIC DRUG THAT SLOWS MY PULSE TO ABOUT A BEAT PER MINUTE—TETRODOTOXIN B. ESSENTIALLY, IT'S A BETA-BLOCKER SEQUENCED FROM AN AQUATIC NEUROTOXIN. DURING EXPERIMENTATION, TRYING TO SLOW NEURAL ACTIVITY IN MY OWN CELL TISSUE UTILIZING COMMON TETRODOTOXIN, IT STRUCK ME THAT WITH THE RIGHT CONFIGURATION, THE CARDIOLOGIC POTENTIAL OF THE DRUG MIGHT HELP SOOTHE THE STRESSES THAT INCITE HULK INCIDENTS.

THE UNFORTUNATE NEWS IS THAT PRELIMINARY TRIALS HAVE BEEN UNSUCCESSFUL. DESPITE TAKING THE DRUG TO SLOW MY HEART AND HALT AN INCIDENT, THE TRANSFORMATION COMMENCED.

ANYWAY, IT'S CLEAR THAT I NEED SLEEP. WILL FILE THIS ONE AWAY FOR LATER USE AND STUDY.



S.H.I.E.L.D. AVENGERS INITIATIVE RECRUITMENT ASSESSMENT

EVALUATOR: Coulson, Phillip J.



4590723949749479

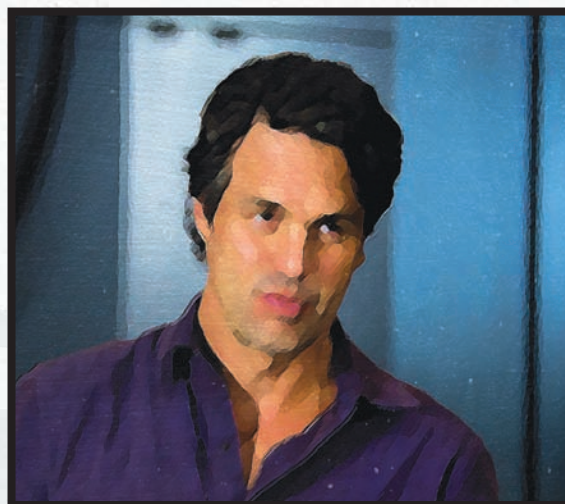
BANNER, BRUCE/"THE HULK"

For the purposes of this evaluation, it is necessary to split our candidate into two separate entities: Bruce Banner and the resulting transformative being known as "The Hulk."

Bruce Banner's intellect is well-documented and publicized. As a direct consultant to the Avengers Initiative, he would be extremely welcome and wholeheartedly recommended.

The Hulk, on the other hand, lacks the mental acuity and reasoning that Banner possesses. While in his altered form, Banner describes his state of mind as if being in a chemically-induced hallucinogenic state. Therein lies the problem. Banner is one of the world's greatest minds, a measured and logical individual. Hulk is illogical, reactive, and loves to smash things in fits of rage. Banner's alter ego, the Hulk, wields incredible strength, but he is completely uncontainable and uncontrollable.

There are glimpses of Banner's consciousness in the Hulk. Dr. Ross testified that the Hulk seemed to recognize her and share the same affection that Banner does for her. But his rage is on a very short fuse. His anger is all-consuming and the destructive behavior that results can be catastrophic.





BANNER, BRUCE/"THE HULK"



In regards to Banner's physical transformation into the Hulk, it is clear that a pulse from his amygdala is what triggers the episodes. The transformation process appears physically excruciating and exhausting for Banner. His eyes, followed by skin, turn a deep green as a reaction to the spread of gamma energy. Height and weight increase during the process. As a result of the changes, his skin is seemingly impenetrable and exhibits bulletproof abilities. It was noted that .50 rounds simply bounce off him. His hands and fists can tear through the strongest of metal surfaces as if they were paper. Dr. Ross also testified to a thrilling result yielded from clapping his hands together, which extinguished a fire and emitted a sound like thunder.

When Banner returns to his regular human state, he's exhausted and requires rest. He remembers fragments of the Hulk's actions, but not much more. The metabolic shift in his system requires him to refuel.



RECRUITMENT ASSESSMENT

Bruce Banner: Yes. Hulk: Proceed with Caution.



WAKANDA ROYAL ARCHIVES

ARCHIVIST NOTE:

Attached please find materials on an individual found affected by Bruce Banner's blood. I believe you will find this information quite useful.

DOCUMENT 32224-REQ



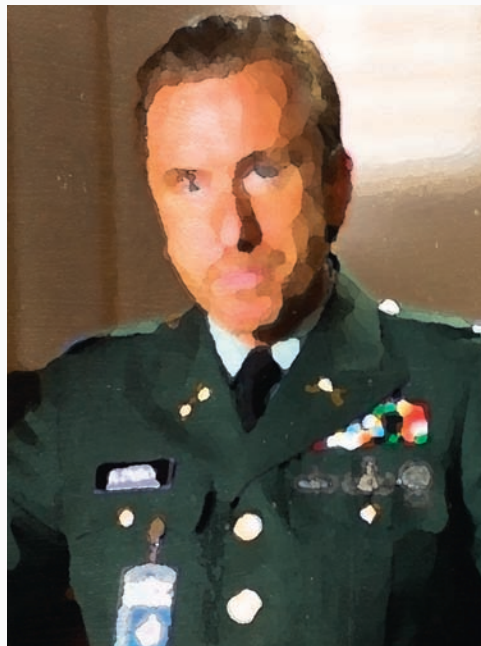
BRITISH CORPS OF THE ROYAL MARINES

OFFICIAL COMMUNICATION

TRANSFER NOTICE: Blonsky, Emil

DIRECT TO: GEN. GRELLER, JOE, U.S. ARMY

Per your petition we have all agreed to hereby loan out the services of Blonsky for the duration of your apprehension of the fugitive. You won't be disappointed, he's one of our fastest, strongest, and most lethal soldiers. A little overkill to be sending him to bring in a meek university scientist, but I have to assume you're aware of variables that we are not. He will be on a chopper out of Westminster at 0600 to the location provided in the petition. You owe me, Joe. A lot more than cheap cigars.





MISSING ASSET REPORT (L&D FORM 501)

It is with regret that during a recent inventory, we have found that Cryosync-contained serum 7922-B209 has gone missing. The safety and security measures in place seem to have been circumnavigated. A general investigation will be opened pending approval by General Ross, though there is no guarantee that the vial of material that has been lost or stolen is still active or effective.



STARK INDUSTRIES – CRYOSYNC DIVISION

Placement of Serum Identification 7922-B209 into Stasis

BY ORDER OF: Department of Defense: Ross, Thaddeus

PROGRAM: Weapons Plus

DEVELOPER: Dr. Reinstein

BATCH NO: 006-V2

VAR NO: RB227.6

DURATION: Indefinite

WARNINGS: Caution Vita-Ray Radiation/Exposure Probable

I

DR. SAMUEL STERNS, DEPARTMENT OF CELL BIOLOGY Notation on Progress of Mr. Green Study

I've been studying the materials sent to me from Mr. Green, and I cannot determine what is more intriguing: the apparent utilization of gamma radiation itself or Mr. Green's blood. It would seem that some sort of synthetic substance allowed an extreme amount of gamma radiation to be absorbed into Mr. Green's bloodstream. The result on Mr. Green's system is extraordinary. There are limitless applications to what it can do. This could be the cure to cancer and countless other afflictions. I can concentrate the blood sample and replicate it for further study. I know that he sent the data and his sample in hopes of finding a cure, but I believe further experimentation using all of this collected material could result in a Nobel-worthy legacy.



S.H.I.E.L.D. ABOMINATION INCIDENT



HARLEM, NEW YORK

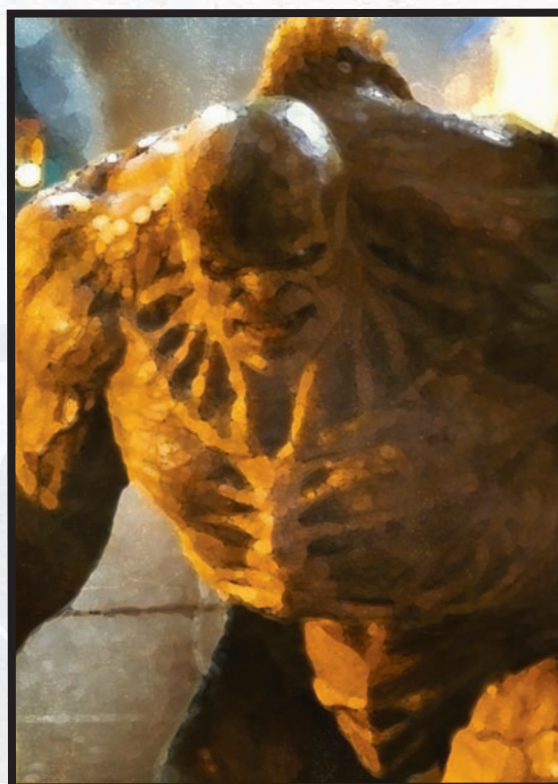
A follow-up to a previous report concerning the apprehension of Bruce Banner, this addendum is submitted for the record.

During military questioning of Dr. Sterns, Emil Blonsky overpowered our agent and forced the doctor to inject Banner's replicated blood into his system. It is now clear that the serum administered to Blonsky caused manic, even addictive, personality shifts. Banner's blood was injected directly into his bloodstream, combining with the serum administered by US Army Bio-Tech—the result was the Abomination, a crazed and uncontrollable monster. Far worse than the Hulk. On further review of his military record, it would seem Blonsky's preexisting appetite for violence was amplified by the chemical changes.

The governmental, public, and private property damage done to the streets of Harlem was massive. We were fortunate there were few civilian injuries, and no reported casualties. Military presence was on-site for Banner's detaining, though they did little to impede the Abomination's destructive path. Traditional weaponry was just as ineffective on the Abomination as it was on Hulk.

Knowing Director Fury's latest agenda, it should be stated for the record that Hulk's intervention and eventual suppression of the Abomination shows just what an asset he could be to the initiative.

It is of interest to note that the Hulk not only maintained some of Banner's memories, but elements of his moral code as well.





HARLEM, NEW YORK

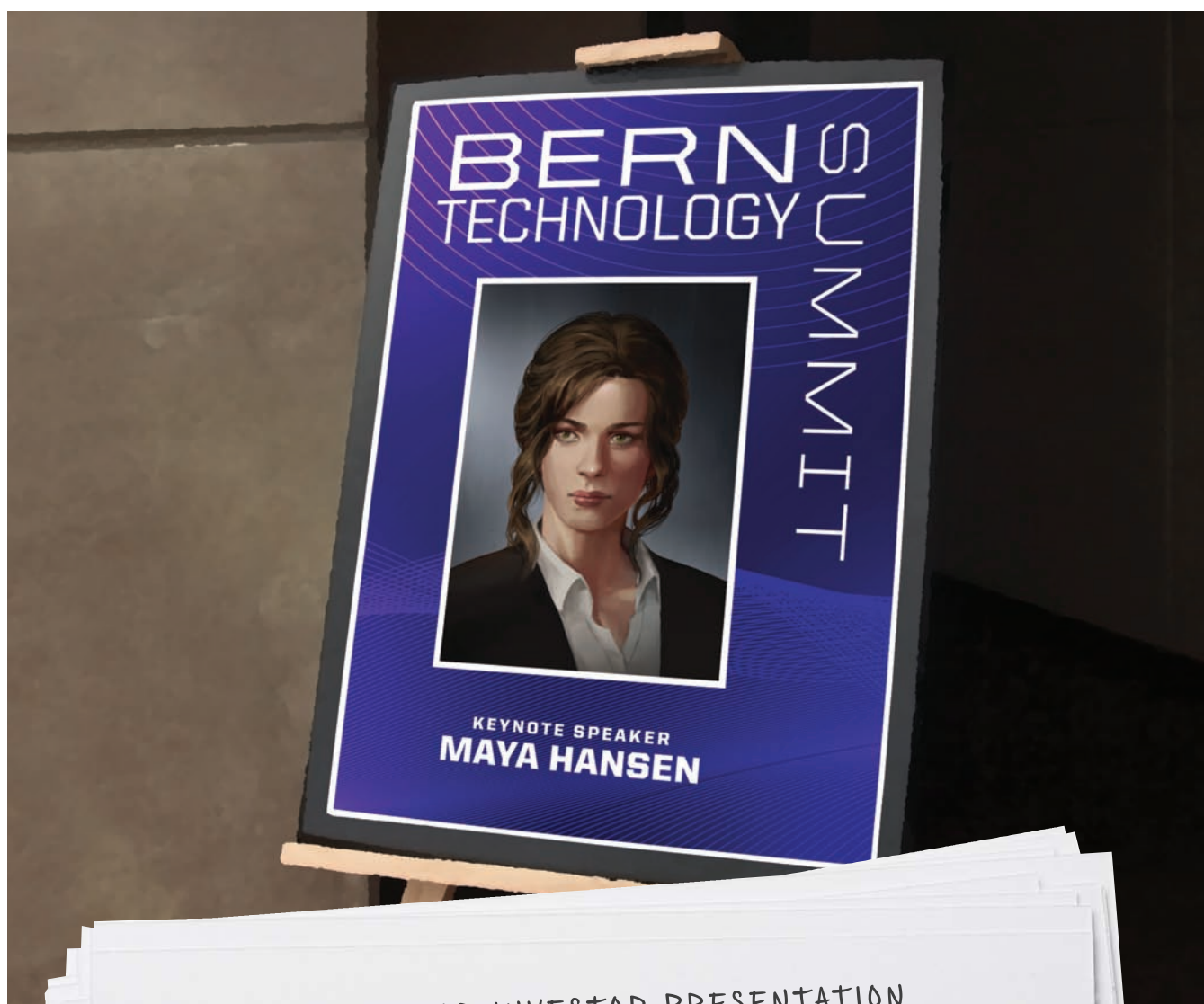


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BIO-TECH ENHANCEMENT/SAMUEL STERNS

FILES PERTAINING TO: THE EXTREMIS PROJECT



SPEECH NOTES FOR INVESTOR PRESENTATION

Ladies and gentlemen, we are ~~at the onset of~~ on the verge of a major innovation in science, health, and the longevity of the human race. Imagine the ability to directly access the area of the enigmatic human brain that governs healing and repair. Then imagine further the possibility in chemically recoding its functionality. When we get a paper cut, our nervous system kicks in to stop the bleeding, fight potential infection, and regenerate the damaged tissue. If our bodies can achieve such a wonder for a small cut, why can't they do the same for a lost limb? For a damaged brain? P-A-U-S-E

Truly, the phrase "mind over matter" is appropriately used in this instance. By reprogramming or recoding our brains to function differently, we can, in turn, live differently. And it is all thanks to Extremis.

Extremis is advanced genetic manipulation, the result of our patented serum. The serum essentially inserts itself into the subject's genetic operating system and rewrites the code that has been instilled in our DNA for nearly 200,000 years. P-A-U-S-E

With this serum, we have seen dramatic, dare we say extreme, innovation in plant life over the past several years. The results have been exemplary, from rapid healing to even complete regeneration of limbs and leaves. The potential of the nearly finalized serum is untapped, but we will be ready to begin human trials soon.

TO: Pepper Potts (@ Stark Industries)
FROM: Aldrich Killian (@ Advanced Idea Mechanics)

SUBJECT: A.I.M./SI Joint Venture Reconsideration

Ms. Potts,

I urge you to reconsider your position on my offer for a joint venture between Stark Industries and Advanced Idea Mechanics. In the event it was not clear, the technology that we possess, Extremis, is the upgrade that we all need. Altering the primary somatosensory cortex with our technology unlocks hidden potential in the human brain that screams for release. Clinical trials have shown that there is "substantial plasticity" in our somatosensory cortex. Amputees, even workers with carpal tunnel syndrome, have all exhibited a complete rewiring of their cortex to compensate for the loss or disability of a limb. Extremis is the key to unlocking our human potential.

I understand there are hesitations about the morality of altering the very existence of humankind. More specifically, what it could mean for weaponizing entire armies of Super-Soldiers. However, your backing would assuage any hesitations that may exist.

Tony Stark ignored me once. He'd be unwise to make the same mistake again.

Best,



Aldrich Killian



ADVANCED **IDEA** MECHANICS



AIM – DAVIS, CHAD
ASSIGNMENT: 93-F0236026-01
SUITABILITY REPORT 10-17N MEDICAL DETAIL
NO. 3059230-B
FROM: CENTRAL RESEARCH

CONFIDENTIAL

PHASE ONE

AIM/PROJECT_EXTREMIS/CANDIDATE_INTERVIEWS

Sgt. Chad Davis

Ellen Brandt

Jack Taggart

David Samuels

Drew Grey

Following extensive interviewing and analysis, it is our opinion that all five candidates are viable for Extremis human trials. All candidates have preexisting physical injuries that can be exploited for demonstration of the effects of the technology. They also all possess motivators that would encourage their continued service and loyalty.

In particular, Chad Davis is an upstanding soldier with a spotless service record and medals of service. Ellen Brandt has tenacity and training that will serve our cause well, though her persistence can, at times, veer toward aggression. However, she also has had a transhumeral amputation of her left arm. Imagine if the serum were to regrow and regain complete functionality of the lost limb.

Taggart, Samuels, and Grey will all be suitable alternative candidates. It should be noted Taggart has demonstrated subtle behaviors of an addictive personality, but has received a terminal diagnosis which would further motivate finding a resolution. Samuels has antibiotic allergies that may interfere with progress. Grey has a history of extreme violence and anger management issues.

With these records, it is increasingly clear that when looking at human enhancement opportunities, the personality of a subject is a vital element. Without a solid foundation to build on, the outcome can be dangerous.



AIM BIOCHEM DEVELOPMENT
PROJECT EXTREMIS
SUPERVISING BIOLOGICAL CODING DIRECTOR HANSEN
STATUS REPORT 722A

DAY 722 POST-EXPOSURE REPORT

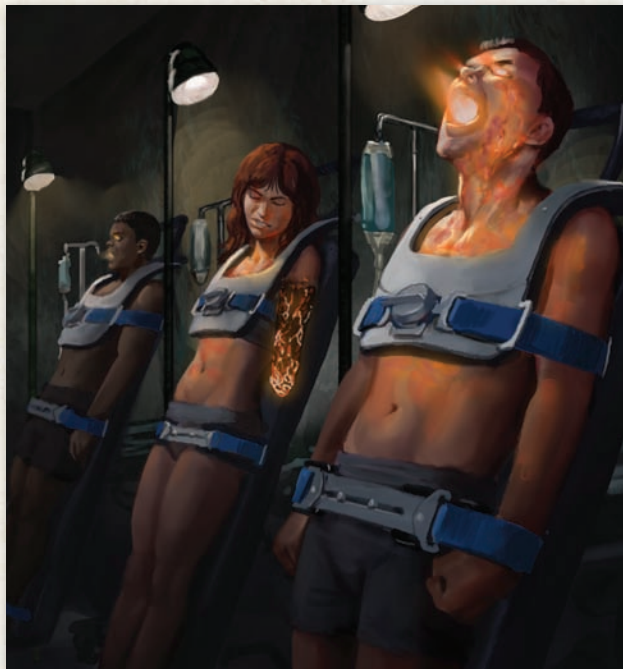
Dendritic repair and revitalization continue in all surviving subjects exposed to the Extremis serum. Brandt's arm is not only at 100% functionality and strength following its miraculous regrowth, all preexisting illnesses have been eradicated. Subjects have demonstrated increased strength, lifting objects several times their own body mass. Reflexes and speed have also been boosted to unheard-of velocities. All subjects have displayed an immunity to pain, including physical violence, fire, explosions, and even projectiles. The ability to breathe fire has also been observed.

In regards to the serum's effect on altering the cortex to promote regenerative health among humans, we have succeeded. However, there are still unpredictable side effects that need to be addressed. Some subjects have shown a higher level of mania than others.

Subjects have also exhibited increased and hazardous body temperatures. One skin-surface temperature reading measured just over 1,400° C. As a result of this extreme heat, an orange glow appears intermittently within the eyes and under the epidermis.

Most concerning is the spontaneous rejection of the serum and a paroxysm of the subjects' mania, leading to an explosive detonation on par with that of a car bomb. Though this ability has potential for strategic military applications, it is certainly not acceptable for civilians and not a viable solution for a long-term application of the serum.

The serum is so close to stability. We need Tony Stark's expertise to regulate the serum and negate some of the unfortunate characteristics inherent to the project. He will need to be motivated properly.



WHIH NEWSFRONT

THIS JUST IN:

Hollywood Landmark Explodes

HOLLYWOOD, CA. An explosion devastated the famous Chinese Theater in Hollywood, California, this evening. Among those injured was Happy Hogan, the one-time bodyguard to Tony Stark. Witnesses report seeing Hogan struggle with an unidentified male, quite possibly the bomber, moments before the explosion. Hogan is in critical condition at Cedars. The unidentified male's remains have not been located.

Though officials are being tight-lipped due to the ongoing investigation, *Newsfront* has learned there was no evidence of an explosive device nor a ballistic attack, despite the fact that the terrorist group, known as the "Ten Rings," and its leader, "The Mandarin," are taking credit for the attack.



SHURI-KIMOYO DICTATION

AUDIO-VIDEO FILE ID#: 753-25_PS_RHINO_LN.wav

FILED UNDER: ADVANCED TECHNOLOGICAL R&D>RHINO CHARGE>EXTREMIS

TRANSCRIPTION OF AUDIO:

Inspired technology. Treating the human brain like the supercomputer that it is, then tricking it into thinking that it has the abilities of cytokinin and auxin in plants and can miraculously regrow lost limbs and heal all wounds. This has potential. I see Hansen's logic. If plants can reprogram cellular tissue in the pursuit of sustainability and survival, why could we not as humans?

But then it explodes. An unfortunate volatility issue.

I like the succession of Hansen's thinking. What if we were to examine *Selaginella lepidophylla*, the so-called resurrection flower found in the Mexican desert? If we could find the sequence of gene programming that allows the flower to once again bloom with just the addition of water, after long appearing dead . . . it might be the building block from which we can develop at least a healing agent.

SENATE ARMED SERVICES COMMITTEE
Transcription Excerpt from 2010
Washington, D.C., Weaponized Suit
Defense Program Hearings

SENATOR STERN

Pennsylvania-Armed Services
Committee Chairman

TONY STARK

CEO, Stark Industries

STERN: Mr. Stark, can we pick up now where we left off? Mr. Stark?
Please?

STARK: Yes, dear?

STERN: Can I have your attention?

STARK: Absolutely.

STERN: Do you or do you not possess a specialized weapon?

STARK: I do not.

STERN: You do not?

STARK: I do not. Well, it depends on how you define the word "weapon."

STERN: The Iron Man weapon?

STARK: My device does not fit that description.

STERN: Well, how would you describe your device?

STARK: I would describe it by defining it as what it is, Senator.

STERN: As . . . ?

STARK: It's a—um—it's a high-tech prosthesis. That is— That is actually
the most apt description I could make of it.

STERN: It's a weapon. It's a weapon, Mr. Stark. I hate to inform you.
It's a weapon.

STARK: Please. If your priority was actually the well-being of American
citizens—

STERN: No. My priority is to get the Iron Man weapon turned over to the
people of the United States of America.

STARK: Well, you can forget it. I am Iron Man. The suit and I are one.
To turn over the Iron Man suit would be to turn over myself, which
is tantamount to indentured servitude or prostitution. Depending on
what state you're in. Can't have it.

STERN: Look, I'm no expert . . .

STARK: In prostitution? Of course not, you're a senator. Come on.

[END OF EXCERPT]

SHURI-KIMOYO DICTATION

AUDIO-VIDEO FILE ID#: 753-26_PS_RHINO_LN.wav

FILED UNDER: ADVANCED TECHNOLOGICAL R&D>RHINO CHARGE>
STARK_TONY

TRANSCRIPTION OF AUDIO:

Moving parts mean mechanical failure.

Spinning hard drives? You might as well just delete your data now. Ceiling fans? Well, those seem to somehow continue to spin decades after Baba had them installed in our living quarters. Terrible example. Yet what is the first thing Stark does to Fury's giant airborne Titans when he gets ahold of the plans? Replaces the moving parts. He must see the same flaws in his own designs, yet he refuses to address them.

I wonder what the total gross weight of this full suit is? There must be ways to reduce?

His miniaturized arc reactor technology is, fittingly, at the very heart of everything. Any improvements to the suit would need to start here and work outward.

Helmet retraction is inventive. It could have significant applications to functionality in other parts of the suit too.

Adding individualized propulsion systems to each segment is exciting, but could lead to tricky situations if there are system failures.



S.H.I.E.L.D. AVENGERS INITIATIVE RECRUITMENT ASSESSMENT

EVALUATOR: Romanoff, Natasha



9783857983444893

STARK, TONY

Analogous to Agent Coulson's decision to split Bruce Banner and the Hulk into two separate recruitment considerations, I likewise suggest the division of Tony Stark from his Iron Man technology.

I'll begin with Stark himself. Mr. Stark displays compulsive behavior. He is prone to self-destructive tendencies and is a textbook narcissist. His self-interests and vanity will not amalgamate with the optics required of the Avengers Initiative.

As for the Iron Man technology that Stark employs, it is a suit of armor with five main operation systems or components: FLIGHT, NAVIGATION, VITALS, WEAPONS, TRACKING—all of which are run by a central voice-commanded operating system he calls JARVIS.

Additionally, the suit employs several DEFENSIVE CAPABILITIES: anti-tampering and redundancies to prevent unauthorized usage of the suit by implementing a self-destruct mechanism.



RECRUITMENT
ASSESSMENT

Iron Man: Yes. Tony Stark: Not Recommended.

**S.H.I.E.L.D.****ARMORY****RESEARCH AND DEVELOPMENT PROGRESS REPORT**

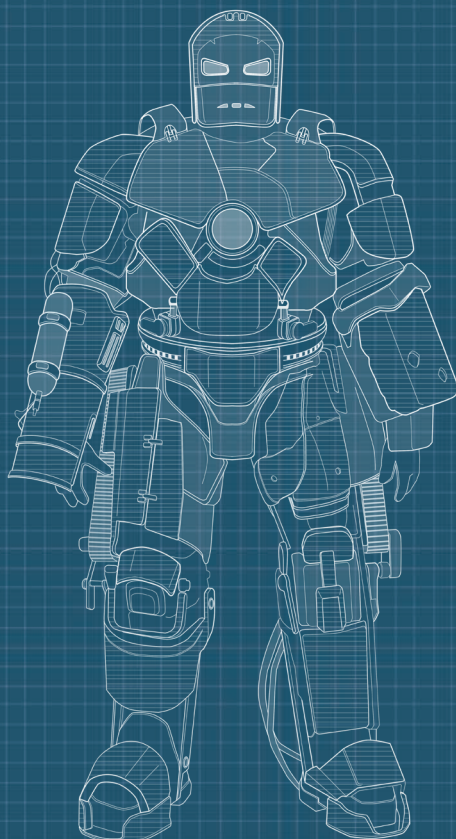
7495879234888023

TONY STARK/"IRON MAN"-WEAPONIZED ARMOR SUIT DETAIL

Director Fury,

Per your request, we have compiled a database summarization of all known iterations of Tony Stark's "Iron Man" technologies. As Stark exercises extreme discretion in the development, advancement, and capabilities of his technologies, we are quite limited to observational and testimonial specifications. We are currently working with the USAF Advanced Weapons Department on the reverse engineering of the Mk. II suit and will keep you updated on progress.

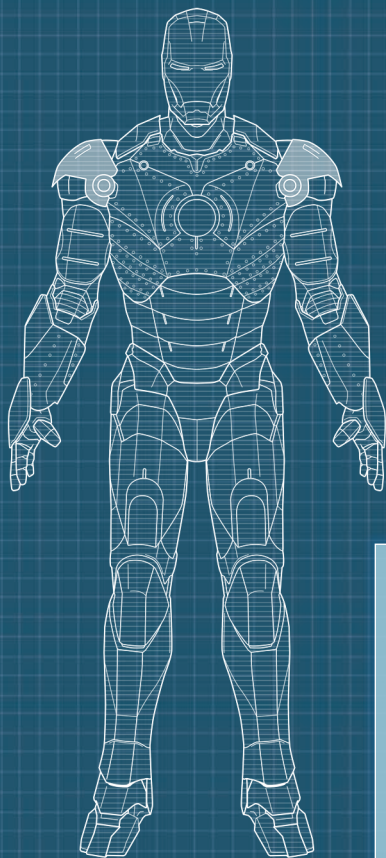
Listing as follows:



MK.1 SUIT

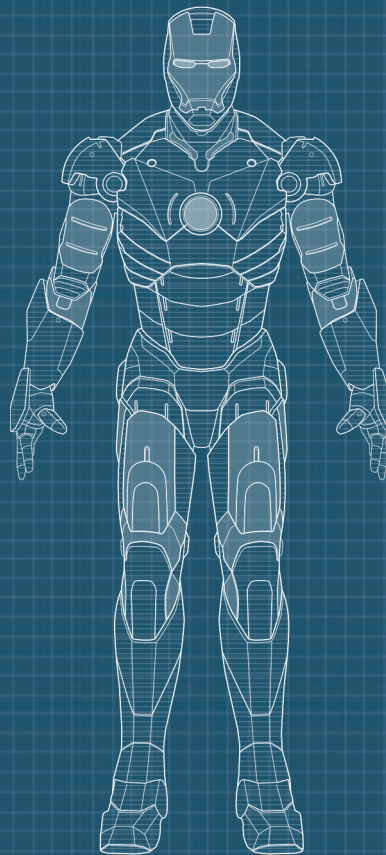
A prototypical armor built with the assistance of noted scientist Ho Yinsen in an Afghan prison cave. Following the incident with Obadiah Stane, the Iron Monger armor was reconfigured to the prototype stage for display purposes only.

MK. II SUIT



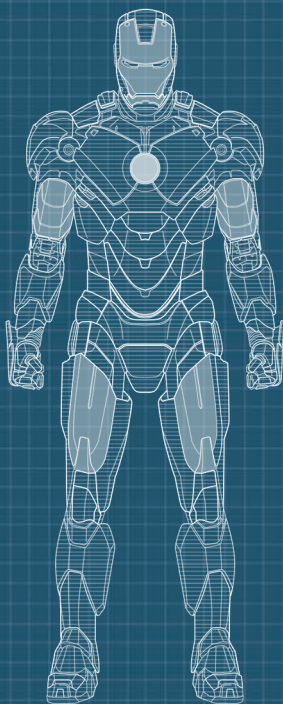
First armor to utilize a refined Arc Reactor. Flies heavy. Ices up in high altitudes. Obtained by US Air Force for use as "War Machine" armor.

MK. III SUIT



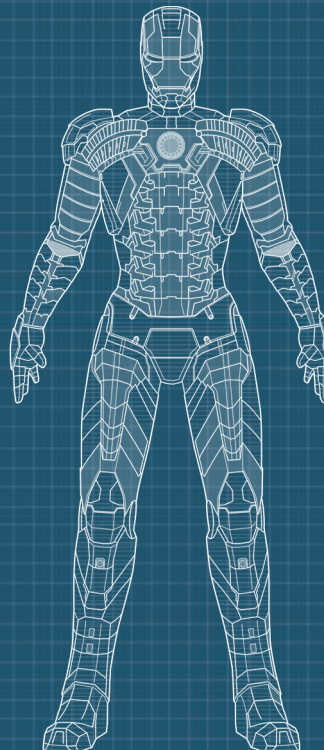
First armor to utilize titanium-gold alloy.

MK. IV SUIT



A restorative refurbishment of the Mk. III following battle with the Iron Monger. Advanced filtration systems.

MK. V SUIT



Portable armor compressed and contained into a 33-lb. briefcase guarded by a biometric fingerprint scanner. Utilized in first Vanko encounter.



S.H.I.E.L.D.

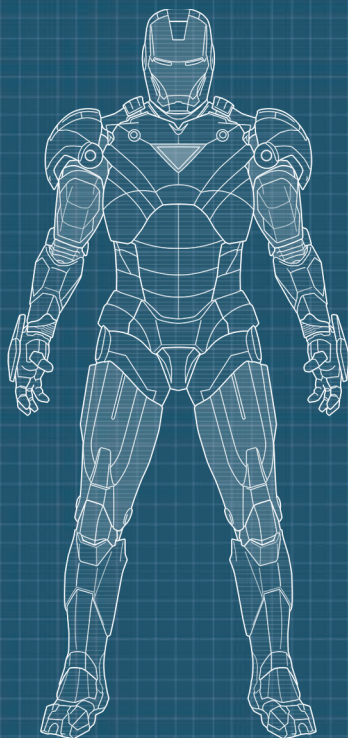
ARMORY/RESEARCH AND DEVELOPMENT PROGRESS REPORT



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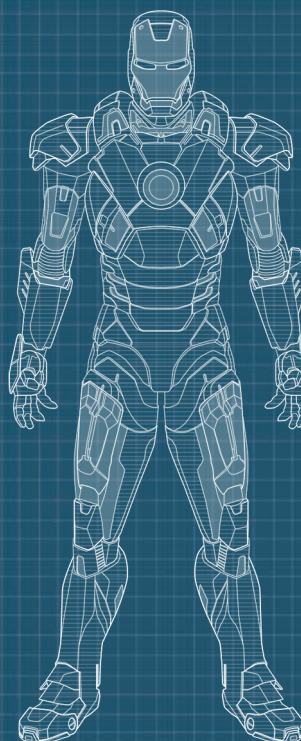
TONY STARK/"IRON MAN"-WEAPONIZED ARMOR SUIT DETAIL

MK. VI SUIT

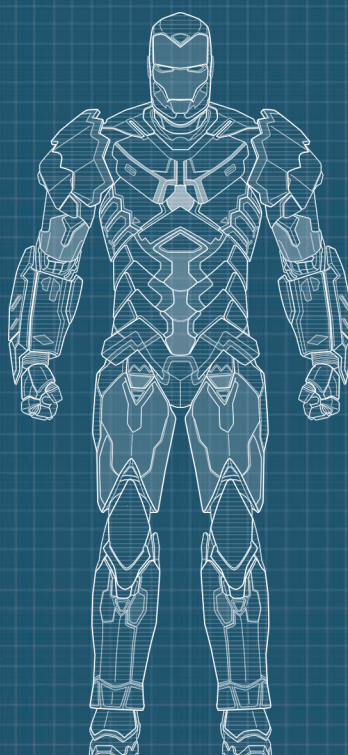
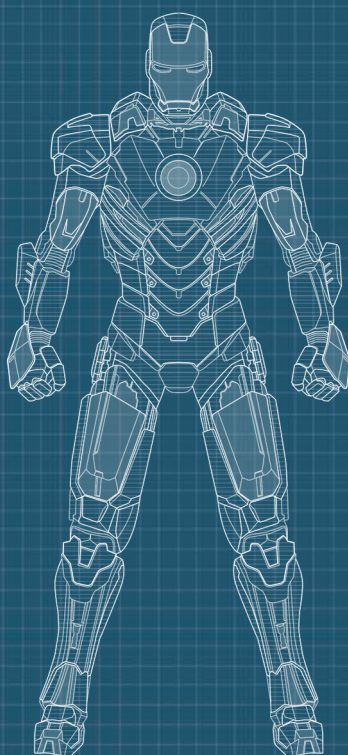


First suit powered by new elemental energy. Advanced offensive capabilities: wrist-firing grenades with target lock; red-laser emitters on each forearm (single shot).

MK. VII SUIT



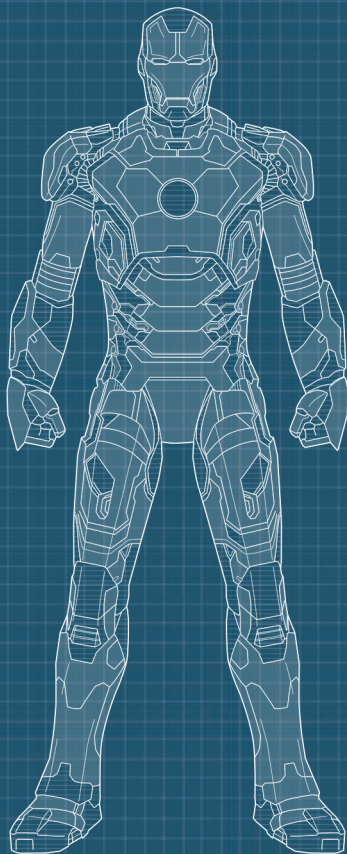
Deployed via pair of wrist-worn homing bracelets. Midair deployment possible. Utilized during Chitauri invasion.



MK. VIII-MK. XLI SUITS

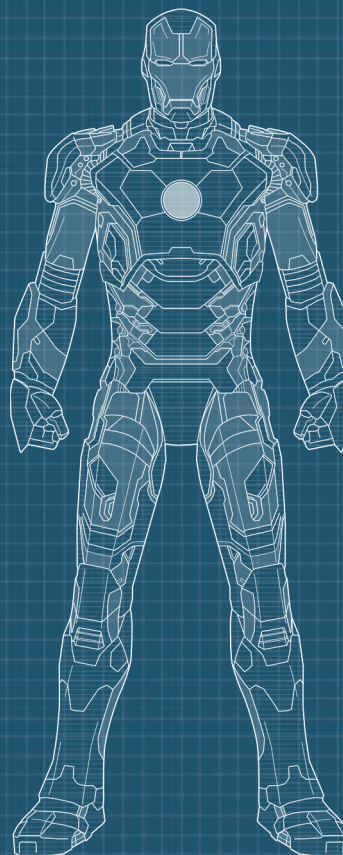
Multiple JARVIS-controlled drone units utilized to combat Extremis-enhanced Aldrich Killian. Destroyed via Clean Slate self-destruction protocol following incursion.

MK. XLII SUIT

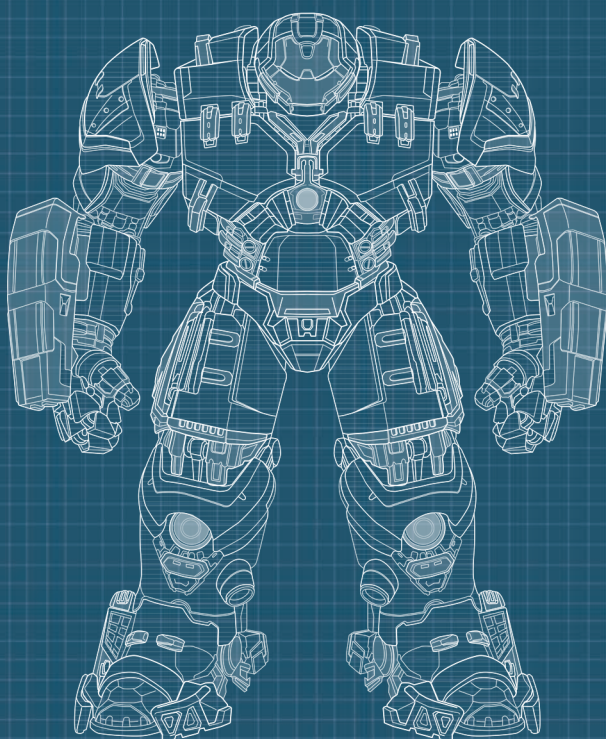


Prototype prehensile suit. Injected micro-repeaters into Stark's arm allow autonomous prehensile self-propulsion and administration of individual components including arms, boots, chest, helmet, and face shield. First suit to incorporate remote augmented-reality control.

MK. XLIII SUIT



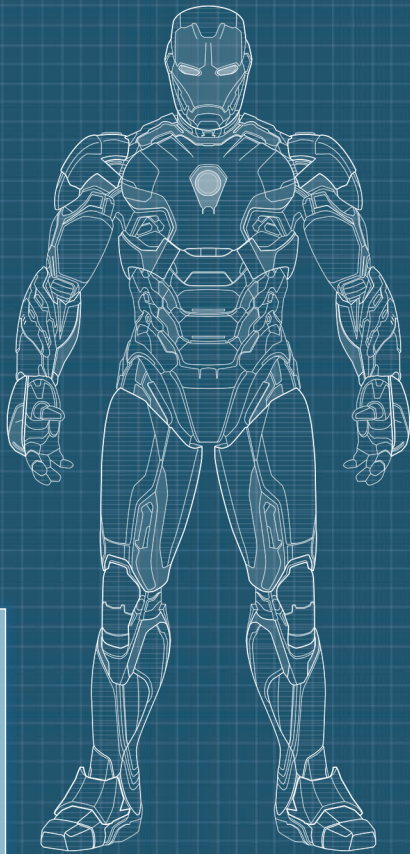
Iterative advancement of the Mk. XLII. Entire suit has prehensile ability, allowing unmanned sentry mode. Upgraded shoulder-mounted mini cannons and anti-armor tank missiles fired from the gauntlets. Utilized in raid of Hydra Sokovia facility.



MK. XLIV: HULKBUSTER SUIT

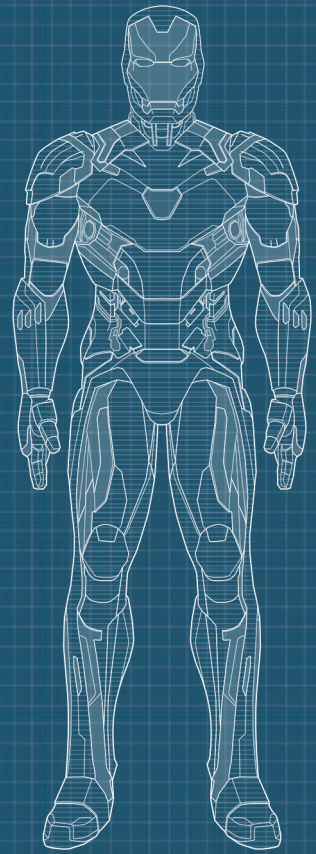
Upgrade inspired by the Mk. XXVIII drone "Igor," a prototype created for heavy lifting. Developed in part with Bruce Banner as a "worst-case measure" to counter the Hulk. Armor is housed in a satellite tracking Banner's genetic signature. Rocket-propelled capsule containment device sends the armor out of orbit toward Hulk's location. A containment pod separates from armor, an addition that can interface with any Mk. of Iron Man suit or operate independently if needed. The containment pod is designed to keep Hulk in a confined space long enough for someone in the Hulkbuster armor to intervene. Armor features heavily fortified shield plating.

MK. XLV SUIT



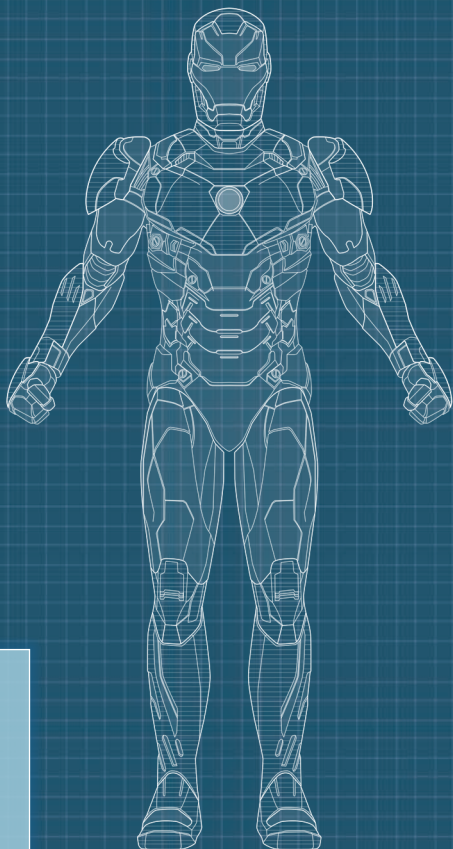
First armor to utilize upgraded F.R.I.D.A.Y. operating system. Utilized in combat with Ultron during Sokovia incident.

MK. XLVI SUIT



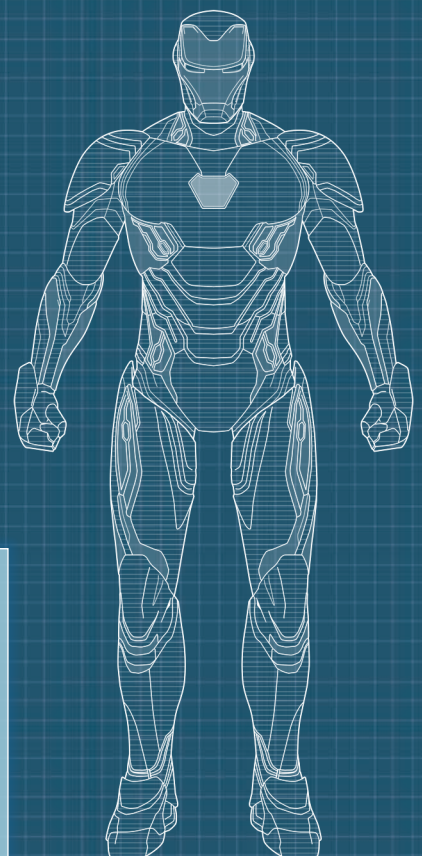
First armor to utilize nanotechnologies. Limited, active noncombatant armor developed in conjunction with signing of Sokovia Accords. Wristwatch gauntlet as accessory incorporating limited repulsor capability. Utilized in the apprehension of Steve Rogers.

MK. XLVII SUIT



Full suit utilizing nanotechnologies. Utilized in New York ferry incident.

MK. XLVIII SUIT



Advanced nanotechnology capable suit. Ability for interstellar flight in testing phase. All other information unknown.

HAMMER INDUSTRIES

Queens, New York



Justin Hammer

CEO, Hammer Industries

DOD Primary Systems Contractor

PRESS RELEASE

FOR IMMEDIATE DISTRIBUTION

Today we mark a new day in the defensive potential of the United States of America and further safeguard her citizens. Along with Lt. Col. James Rhodes, the USAF Weapons Procurement Liaison, we are pleased to announce a joint venture between the United States Air Force and Hammer Industries, a longtime leader in weapons manufacturing and development. We unite together with one goal: the next iteration of manned flight systems and suits to create the next breed of iron men.

Our enemies are exploring operational suits similar to that of Tony Stark's Iron Man to give them the strategic upper hand. This is the next arms race. And just as we always have, the United States needs to cross that finish line and plant that flag with a suit that will make them all quake.

I'm pleased to announce that this partnership is already proceeding. Weaponized suit trials have long been under way at the Hammer Industries' research and development facilities. There are rumors that there have been incidents and accidents, and we would like to assure everyone that all development has followed a similar procedure to some of our greatest innovations, and the results have been no different.

Soon, the United States will have scores of soldiers flying through the sky, ensuring we are all safe and protected. Because isn't that what it's all about? Tucking your kids in at night knowing that we're watching over from above?



S.H.I.E.L.D. FIELD REPORT

AGENT ON SCENE: Romanoff, Natasha



7873290473758475

STARK ONGOING OBSERVATION

ACQUISITION OF MK. II BY USAF:
MALIBU, CALIFORNIA
ATTN: LEVEL 10

Director Fury,

Lt. Col. James Rhodes is now in possession of Stark's Mk. II suit. Stark's state of mind is erratic. Palladium poisoning is weakening him physically and emotionally. Rhodes had to use force to detain the suit.



RECOMMEND AN EXECUTIVE-LEVEL INTERVENTION.

WHIH

NEWSFRONT

HAPPENING NOW:

Disturbance at star-studded Stark gala, guests evacuated

MALIBU, CA. A bizarre scene unfolding at the highly-touted birthday celebration for genius inventor and billionaire playboy Tony Stark. *Newsfront* reporters were at his Malibu mansion this evening to cover the gala, which was a star-studded affair. The celebratory event took a dramatic turn as Stark's behavior spun toward the erratic and unpredictable. Party-goers were forced to evacuate the mansion as Stark donned his Iron Man armor and began firing weaponry and causing a disturbance. Authorities responded to the scene immediately. As of now, there have been no injuries reported. More on this story as it evolves.



INNER-OFFICE MEMO

Ref. 2871-FY66

Date: July 30

To: Associate General Counsel—Stark Legal

From: Stark Industries CEO

Subject: C&D Papers

Burt, we need to serve C&D papers immediately to the United States Air Force for the illegal seizure of private copywritten and patented technology. As you are well aware, the Iron Man Mk. II platform is wholly owned by Stark Industries. The Mk. II has been taken, without our written and express permission. We have taken the most rigorous precautions to safeguard our intellectual property from the exploitation of the United States government since before the company was handed over to Tony. Stark Industries and the military branches have worked together in good faith for decades, and this theft of our property is a violation of that trust.



Ref. 2874-FG98

Date: Aug 6

To: All employees

From: Happy Hogan

Subject: CLASSIFIED MEMO FOR IMMEDIATE ATTENTION

A reminder that all employees and visitors to the Stark Industries corporate premises must be vetted and signed in at security, clear a safety and security examination, and have a visible badge on their person at ALL TIMES. No exceptions. Ever.

Report any and all suspicious behavior or unknown persons immediately to facilities or security. If you see something, say something.

Happy Hogan
Head of Security, Stark Industries

(This memo has been approved by HR to be placed in all restroom facilities among Stark Industries properties)

HAMMER INDUSTRIES
Queens, New York



TO: Major Gen. Meade
Edwards Air Force Base
Mojave, CA

We understand that the Iron Man prototype has been acquired and brought to Edwards Air Force Base. We at Hammer Industries are happy to assist in the rearming and refurbishing of the suit to meet the Air Force's highest standards in time for the introduction at the Stark Expo.

Our proposal for further weaponizing the suit into a new-formed Variable Threat Response Battle Suit could prove the boilerplate for mass production. Additions could include:

- Claridge High-Tech Semi-Automatic 9mm Pistol
- M-24 Pump-Action Shotgun—five round magazines
- M-134 762 minigun. Six individual barrels. Mounted over the right arm. Fires 6,000 rounds per minute.
- Belgian FN-2000
- Milcore 40mm Grenade Launcher—tear and smoke gas
- Kinetic kill sidewinder vehicle with a secondary cyclotrimethaline trinitramine RDX burst
- Bunker buster missile. This is Mr. Hammer's personal favorite addition to be mounted inside a compartment in the shoulder.

We'd also suggest a software upgrade to the latest Hammer operating system, and a surface-level redesign/reconfiguration of the currently bare prototype armor.



ORDER TO CEASE AND DESIST ALL OPERATIONS

The United States and all branches of the armed forces hereby revoke all contracts and nullify any and all agreements in place with Hammer Industries, both previous and in perpetuity. It is the opinion of the committee that Hammer Industries has operated outside guidelines and perimeters of approved vendors.



THE WHITE HOUSE
Washington, D.C.

FROM: THE OFFICE OF PRESIDENT ELLIS,
EXECUTIVE DIRECTIVE

TO: DEFENSE SECRETARY,
UNITED STATES DEPARTMENT OF DEFENSE

The actions of Lt. Col. James Rhodes have been extremely successful. However, there are a few optics issues, especially in light of the current threat of the Mandarin and the Ten Rings. It is our opinion that it would assure the general public that the vanguard on the frontlines protecting them from this menace isn't a machine of war, but rather a symbolic gesture of peace and freedom. In fact, a public-facing name such as "War Machine" in and of itself is far too aggressive.

PR in conjunction with Advanced Idea Mechanics have conceptualized a rebrand and refurbishing of War Machine that has tested extremely well with focus groups. Rebranding War Machine as the "Iron Patriot" will send a far better message.

Especially in the wake of the Battle of New York, it would be in our best interests to involve a rethought War Machine in the efforts, while also providing a strong role model for the youth of our country to aspire to become.

SECRET SERVICE
AFO DURESS ALERT
7500, CONDITION RED, CODE BRAVO



All units. Air Force One compromised. President Ellis seized.

Detail: The Iron Patriot has gone rogue and attacked AFO. Several confirmed deaths. The plane has lost altitude but has stabilized. Iron Man has intervened, having already rescued 13 officials and AFO employees who fell from the craft after an explosive device caused a breach. Vice President Rodriguez in command until CIC confirmed green.

WAR MACHINE 2.0 REFURB DETAIL

THE SUIT HAS PASSED THROUGH TOO MANY HANDS. TIME TO STRIP IT DOWN FOR AN UPGRADE. SOME IDEAS FOR THINGS TO ADD:



RIGHT-WRIST-MOUNTED SONIC DISABLER

You know those LRADs we made for Ross? The army loves those things. Plus, doesn't matter if you're Hulk or Maximoff, that packs a painful punch. It's good for disarming a particularly tense situation without resorting to violence. Let's miniaturize it and throw it on the War Machine gauntlet.

STUN BATON

Nothing screams nonlethal like a big stick. With the pull of a trigger, this feature extends to an attack position, revealing four power hit points. Electroshock is delivered using precision power, which we can charge with a hot-swap dock located behind the right shoulder. Swung like a baseball bat, it can deliver quite the punch.



AVENGERS HQ



INCIDENT REPORT

BERLIN, GERMANY

DAMAGE ASSESSMENT OF WAR MACHINE SUIT,
COL. JAMES RHODES STATUS

The War Machine suit suffered a catastrophic failure following the skirmish with those that opposed the Sokovia Accords. An inadvertent collision with a beam from Vision's Mind Stone, which was intended to disable Sam Wilson's EXO-7 flight pack, sliced through the War Machine arc reactor, cutting all flight system power. The armor fell from the sky, and Col. Rhodes was unable to regain control. All backup systems did not activate. Hitting speeds of about 9 Gs, Rhodes passed out before surface impact. A medical evaluation is underway for Rhodes, but laceration of his spinal cord from the fall is probable. Injuries will be severe.

GLOBAL

[SET-01] 01452.1112 0000x1
45151.124 0000x1
77241551.0 0000x3

TONY STARK PERSONAL LOG

Rhodey took a pretty mean hit. Like, extreme spinal column damage, I mean. That's the bad news. Good news? With a little motorized assistance, and a whole lot of physical therapy, I think we can get him back on his feet again. The basic exoskeleton mechanics of the Iron Man suit should be suitable for leg braces. In fact, if I strip out all the armor and stick just to the bones, I bet I could make braces that weigh a little under 5 pounds for him. Motor function communication from the brain to sensors in the mechanized legs shouldn't be too difficult using micro-repeater injections similar to those in my arms. Shock absorption and lateral movement may be a little difficult, but once we get some forward momentum both literally and figuratively, we can work that out. And then, of course, when he's in the War Machine suit nothing should be a problem as we can fully mechanize his movement where his body fails him. I know he's pretty down right now, but this isn't anything that we can't handle. I

GLOBAL

[SET-01] 01452.1112 0000x1
45151.124 0000x1
77241551.0 0000x3

TONY STARK PERSONAL LOG

This kid in Queens that's blowing up on YouTube is a bit more interesting than a cat playing a harmonica. Get this. Some teenager gets bit by a spider and suddenly shows up some of the best in the Avengers squad? And I don't think these are special effects; this kid is catching an in-motion vehicle traveling at 40 miles per hour. That's like 3,000 pounds worth of vehicle. How?

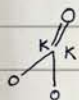
He's created this webbing from what? Over-the-counter products he's buying in a bodega? If he created all of this tech scraping together garbage, think what he could do with the playground we've built upstate.



Web Fluid

version 3.01

Silk? Not Sticky. Nor malleable enough for my applications. Has to be load-bearing and strong, hold with extreme amounts of tension and stress, yet have a little stretch to it.



Natural Spider Silk = 1.75 GPa

Synthesized Spider Silk = .875 GPa - - - Not strong enough. If I can up the gigapascals to at least an even 1.0, stringing up a car might be doable with enough webbing.

Cartridges

16-gram carts? Could borrow empty CO2 cans from the wood shop pinebox derby garbage?

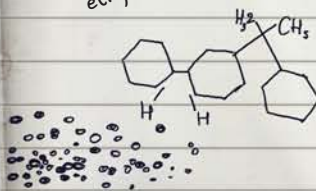
Disbursement

A device on my wrists, like a bracelet with a trigger pad in the palm of my hand activated by middle-most fingers? That way I can slice it off, or keep it connected as needed. Wait, could I swing from it? PSI would have to be pretty high to get the webbing to the distances that I'm thinking. 10,000 PSI? Whoa. That might be too much for my wrist to handle. Half that? 5,000? But what's the source? What if I throw some CO2 into the fluid cartridges? Give it a little extra 100 PSI push? Every little bit would help.



It is clear Peter Parker has a unique perspective and insight into his own abilities.

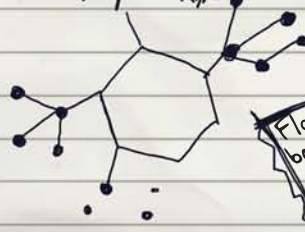
Salicylic acid $C_6H_4O_3$ add 10mg C_6H_5
 Toulene $C_6H_5CH_3$ CH_3 to CH_2OH
 Methanol CH_3OH (4mg) stir and
 boil.
 Carbon Tetrachloride 13.9g Rs^2Cos
 Potassium Carbonate $C_2H_5O_2$ O_{52} , $Ca \cdot H_3O_4$
 ethyl acetate



Hexate Seal flask wait
 BHA 15 minute
 Sodium tetraborate

Activator hydrated
 Silica gel - for purifying

THEN Add activator degas for
 heat slowly over a 24 hr period
 30 min
 FROM LAB



Flask - round
 bottom
 Septum Seal
 gas cylinder
 hot plate/burner
 measuring cylinder
 stir bar

JARVIS, file this note under PROJECT 17:A/"IRON-SPIDER PROTOTYPE." I've been thinking now that our friend sent over the goods on that nanoparticle tech, the kid might benefit from a more versatile and protective suit. Seeing how he handled himself in Berlin, he's got potential. The kid is the real deal. When the time is right, he might need threads with a little more kick, even though I'm pretty sure this kid can dodge whatever is thrown his way. It's like he's telepathic with how fast he's able to move and react.

CONCEPTUAL ORTHOGRAPHIC FOR REVISED SPIDER-MAN SUIT

Nanotech-construct mask and HUD
(retracts into collar)

Next-generation
light-sensitive
holo-lenssystem
with F.R.I.D.A.Y.
A.I. on-board

Re-inforced Mk. III
wrist-worn web
shooters (2x)

Supportive gloves
and footwear to
enhance Parker's
naturally cohesive
ability

VISUAL DISPLAY:

A mechanized aperture to help him focus and control input should give him a hand dealing with isolating objects quickly in his depth of field and opening up his night vision to be clearer. While we're at it, we could upgrade him with a HUD and a voice-guided user-interface.

Full life-support containment
system and breathing
apparatus for oxygen-less
environments

Web shooter auto-
refill system on-board
limits or completely
eliminates need for
refill cartridges

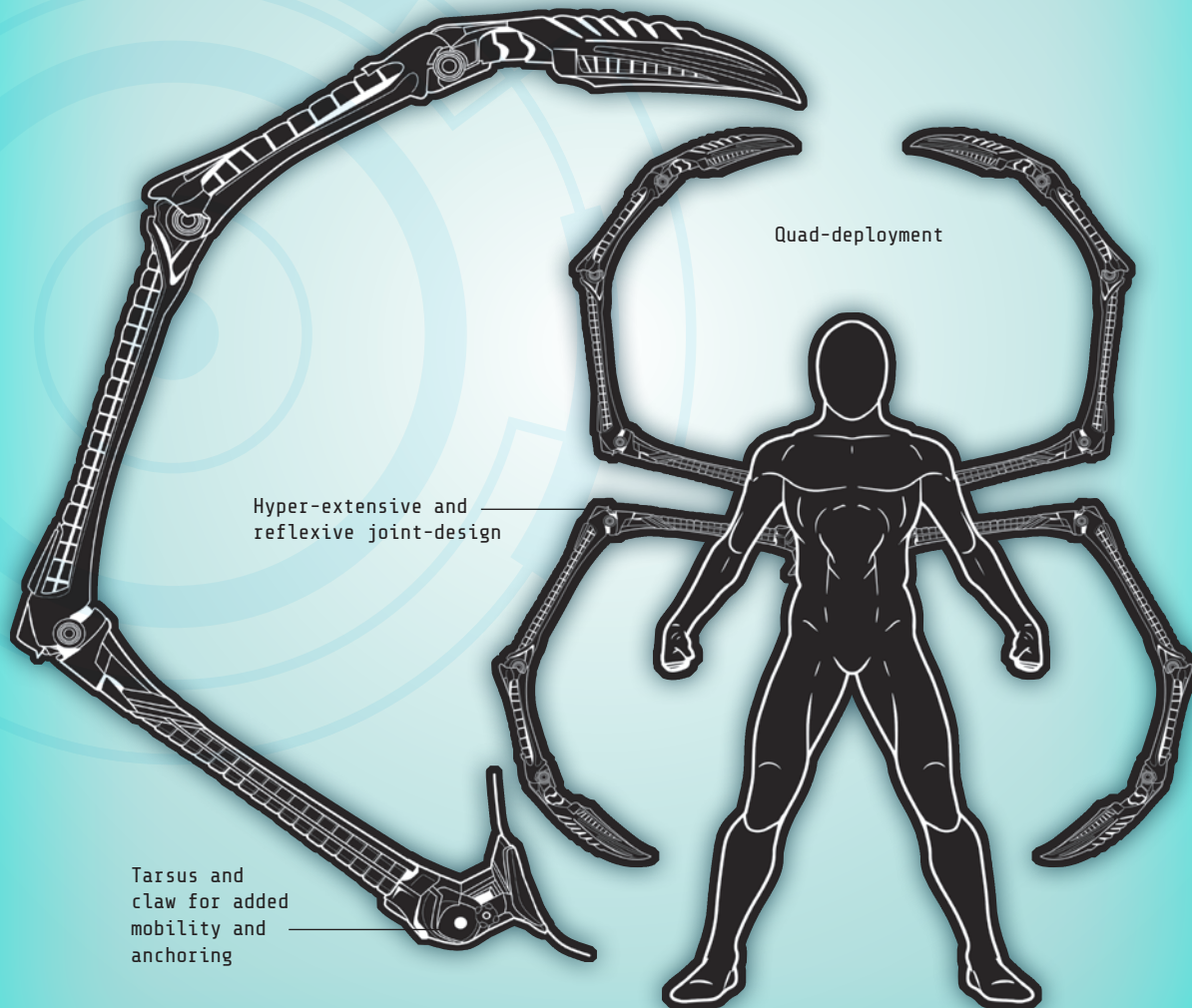
Reactive "healing"
nanotech repairs
minor damage to
suit structural
integrity

The webs are hot. Let's not touch a thing with that chemistry. If anything, let's have his suit run analysis as much as possible.

A Leg Prototype Concept

Once he's got the hang of the upgrades, let's lend him a hand? Or four. If we give him nanotech spider legs that build out from his back, it can be a safeguard from falling, a defensive mechanism. We won't get carried away like Cross did with that Yellowjacket suit, but it could be a fun touch.

Let's mock up a prototype and dangle it in front of the kid. Just as a little incentive to keep on the straight and narrow, should he ever want to join the Avengers.



SHURI-KIMOYO DICTATION

AUDIO-VIDEO FILE ID#: 753-27_PS_RHINO_LN.wav

FILED UNDER: ADVANCED TECHNOLOGICAL R&D>RHINO CHARGE>NANOTECH

TRANSCRIPTION OF AUDIO:

After what felt like years, but was probably only a few months, our cryo-transmission electron microscope is complete. We can finally begin refining our work with nanoparticles . . . now that we can actually see them. It was quite difficult working with technology we could barely see, let alone refine and figure out more efficient ways to use the technology. But with the ability to create nanofluid we can observe under a microscope, we should be able to run advanced diagnostics on our prototype nanotech.

Where others in the field of nanotechnology have used gold exclusively in their synthetization of nanoparticles, we have the advantage of utilizing vibranium as our primary building material. It has allowed us to build without sacrificing diametric size of the particle spheres. Basically, it comes down to what it always comes down to: we are able to do it better than everyone else. Do not hate.

MESSAGES

☒ Send Message

To: Asset Management

From: Database Access

As part of our recent agreement, please grant full access to all design and technological developmental databases to our allies in Wakanda. This access is not to exceed files labeled clearance level orange. Access keys and portal information may be delivered directly to the Wakanda Royal Archives.

Thank you,
Pepper

Virginia Potts, CEO

STARK INDUSTRIES

ENCRYPTED FILE TRANSFER
TO AVENGERS HQ

STARK INDUSTRIES

PRIORITY ONE

Banner, coming your way to discuss my latest little arts-and-crafts project.

Attached is the synthesized model for my inverted Möbius strip solution. Take a look. It certainly proves our previous space-time orientation theories. And, somehow, eliminates problematic paradoxical issues.

I know, I can't believe it either. This kind of theoretical science shouldn't even be testable, let alone presented in a successful simulated system. I find myself re-reading Deutsch's "Quantum mechanics near closed timelike lines" just to make sure I haven't missed anything. Using this model, altering events of the past could never affect the continuous loop. Though, it could create tangential split-timelines, but let's not worry about that for the time being, right? One reality at a time. For all our sanity.

Most important (aside from findings that are possibly Nobel-worthy – just to put it in writing that I was responsible for this), I believe by utilizing the curvature of this construct, it will be possible to compute and track the geographical, and chronological, location of a time traveler. Yes, I just said time traveler. Because if we're going to embrace this nonsense, we may as well hug the H.G. Wells of it all nice and tight.

Basically, I'm thinking if we use this model, and slap one of these fancy pedometers on, we've bought ourselves a fighting chance.

PROTOTYPE WRIST-WORN CHRONOLOGICAL GPS (Mk. I)

Input/output device intended to track the trajectory of an entity through quantum spacetime and assist in proper navigation. Data from a geometric sliding positioning on the Möbius strip is transmitted and constantly pinged back to the home computing device. The server can then process that data and realign the trajectory of the traveler as necessary. Think of it like time machine auto-pilot. Just set the coordinates and go.



*My goodness,
I wish I would
have been
around for
this. I would
have loved
to help
develop the
Möbius model.
Imagine the
chronological
GPS with
Kimoyo
technology?
What a missed
opportunity!*

AVENGERS HQ

BANNER NOTES

MODIFICATION OF PYM QUANTUM SUIT



PYM PARTICLES ARE REQUIRED TO SHRINK THE ATOMIC STRUCTURE OF THE TRAVELER, SIMILAR TO THE ANT-MAN SUIT EMPLOYED BY LANG AND HIS EARLIER PREDECESSOR. BY MAKING THE SUBJECT SUB-ATOMIC, ENTRY INTO THE QUANTUM REALM IS POSSIBLE. WE'VE BEEN WORKING TO MODIFY PYM'S PROTOTYPE QUANTUM SUIT FOR THIS PURPOSE. STARK'S MODEL AND DATA WERE EXTREMELY HELPFUL IN PROGRESS, ALBEIT CONCERNING. TIME IS A LINEAR CONSTRUCT IN A NEVER-ENDING LOOP. WHAT IF THAT LOOP IS BROKEN? WHAT IF THERE'S A DIVERGENCE?

WRIST-WORN CHRONOLOGICAL GPS WITH NANOTECH QUANTUM SUIT DEPLOYMENT (MK. II)

WE HAVE TAKEN THE SAME DEPLOYMENT SYSTEM FROM THE MK. I IRON MAN ARMOR, A MODIFICATION OF HANK PYM'S LATEST ANT-MAN SUIT, AND INCORPORATED THE FUNCTIONALITY OF BOTH INTO THE NEXT ITERATION OF STARK'S QUANTUM GPS DEVICE. IT'S QUITE AN INGENIOUS AMALGAMATION OF SEVERAL TECHNOLOGIES AND APPLICATIONS. NANOTECH PARTICLES MANIFEST A SUIT THAT PROTECTS THE WEARER FROM QUANTUM AND TEMPORAL ANOMALIES, WHILE ALSO PROVIDING ESSENTIAL LIFE SUPPORT SYSTEMS. THE ENTIRETY OF THE HELMET AND SUIT CAN BE RETRACTED/COLLAPSED INTO THE WRIST-WORN DEVICE. THIS ALLOWS THE WEARER TO QUICKLY EXHIBIT "NORMAL" ATTIRE TO THE PERIOD IF NECESSARY, AND ALSO PREVENTS THE SUIT FROM BEING DAMAGED WHILE NOT IN TRANSIT.



AVENGERS HQ

BANNER NOTES

OPERATION TIME HEIST



THIS DOCUMENTATION IS TO SERVE AS A FINAL RECORD AND TESTAMENT OF THE AVENGERS INITIATIVE IN THE EVENT OF CATASTROPHIC FAILURE. THE OBJECTIVE OF THIS SELF-SANCTIONED MISSION IS THE APPROPRIATION OF ALL SIX INFINITY STONES IN THE PAST, AND THEIR RETURN TO PRESENT TIME. ONCE COLLECTED, IT IS THEORIZED WE WILL BE ABLE TO UNDO THE DAMAGE CAUSED BY THANOS AND RETURN THE VANISHED.

AS ALL HANDS AT HQ WILL BE ENTERING THE QUANTUM REALM, LEAVING NO ONE BEHIND TO KEEP THE LIGHTS ON FOR US, THIS BLUEPRINT SHOULD SERVE AS MEANS NECESSARY FOR RETRIEVAL OR FOR HISTORICAL RECORD.

MOBILE QUANTUM TUNNEL UNIT

DEVELOPED ORIGINALLY BY HANK PYM AND HIS DAUGHTER, HOPE, A SMALLER, PORTABLE ITERATION OF HIS ORIGINAL QUANTUM TUNNEL WAS CREATED TO BE HOUSED IN THE BACK OF AN X-CON CARGO VAN. THIS LOW-ENERGY CONSUMPTION DEVICE WAS ACQUIRED UPON SCOTT LANG'S RETURN FROM AN EXTENDED STAY IN THE QUANTUM REALM. THE TUNNEL IS CONTROLLED BY A SMALL PANEL THAT CAN BE POSITIONED A SAFE DISTANCE FROM THE TUNNEL ENTRY PERIMETER. BECAUSE OF THE HIGH-ENERGY DISCHARGE UPON ENTRY AND REENTRY, IT IS NECESSARY FOR ANY OPERATIONS OR ENGINEERING PERSONNEL TO KEEP THEIR DISTANCE.

QUANTUM TUNNEL PLATFORM

A SINGULAR PLATFORM WAS NECESSARY FOR THE TRANSPORT AND SUCCESSFUL SUBMERSION OF MULTIPLE BEINGS INTO THE QUANTUM REALM AT THE VELOCITY NECESSARY FOR TRAVEL. REVERSE-ENGINEERING PYM'S MOBILE UNIT, WE HAVE CREATED A CIRCULAR-PLATFORM IN WHICH WE WILL BE ABLE TO TRAVEL AS A TEAM. ALL CONTROLS ARE REMOTE-TRIGGERED BY THE INDIVIDUAL WRIST-WORN GPS DEVICES. A COMPUTER SERVER ALSO MONITORS THE MOVEMENTS AND POSITIONING OF ALL INDIVIDUALS IN THE EVENT OF A REMOTE RETRACTION BEING NECESSARY. THE LARGE SURFACE AREA ALLOWS ENTRY OR REENTRY OF INDIVIDUALS OR VEHICLES AS NECESSARY.



WORLD CONFERENCE ON HUMAN GENETICS & GENOMICS SEOUL, SOUTH KOREA

KEYNOTE SPEAKER: DR. HELEN CHO, U-GIN GENETICS RESEARCH

SYNTHETIC SKIN REPLICATION AND PRINTING ASSEMBLAGE

Imagine if our bodies never had to grow old. Atrophy and fatigue would be antiquated terms in regards to the advancement of our age. Following in the footsteps of my colleagues, Doctors John F. Burke and Maya Hansen, this proposal elevates their research and conclusions to an entirely new level.

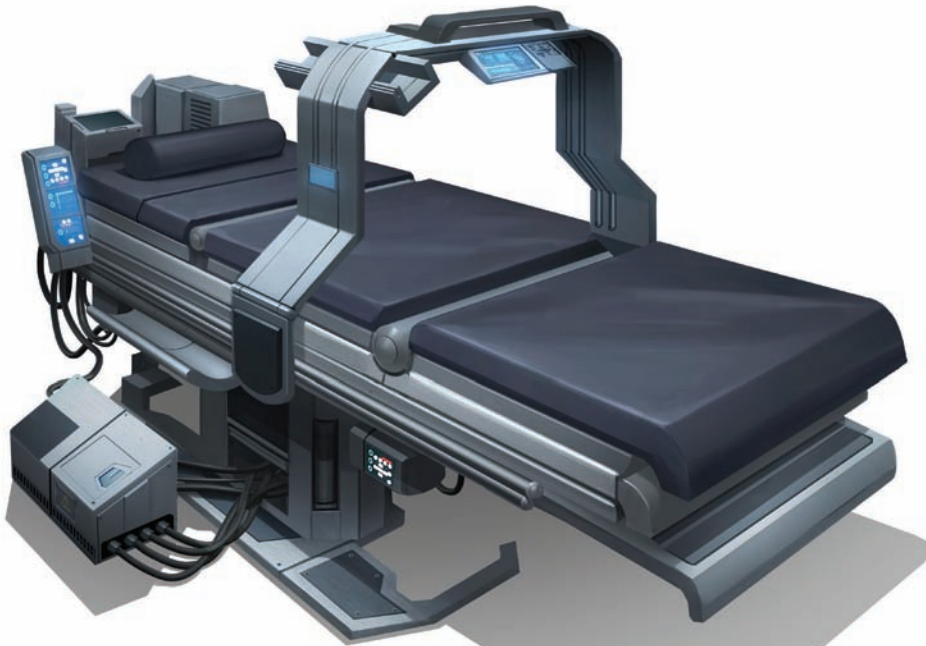
The xenograft of my synthetic skin revolutionizes the first-aid treatment of injuries. It allows rapid closing of lacerations before they can become infected or foreign contaminants are introduced. Rapid production of synthetic skin that appears to the touch to be 100% biological revolutionizes options for burn victims, completely eliminating scarring or noticeable healed wounds. It regrows and regenerates tissue over mechanical prostheses for lost limbs. With further advancement and the correct materials, it may even be possible for the creation of an entirely new body when a life is failing.

Long have there been two polarized schools of thought as to how human tissue should be replaced: with arguments for utilizing the biological and similar arguments for the artificial. The creation of my synthetic tissue and the Regeneration Cradle is an answer that puts the debate to rest. There is absolutely no possibility of deterioration of synthetic skin that emulates biological traits. The nanomolecular functionality and attachment process to the human's preexisting skin is instantaneous and seamless. A patient's real skin does not react to the fact that it has been bonded to an artificial substance, and the sensitivity and response to touch of the synthetic skin is faultless. Its flexibility and resilience are far superior to a human's natural epidermal layer. But it is completely invisible. Only the patient and the doctor who administered the xenotransplantation process will know the extent of its application.

My full Regeneration Cradle has the ability to repair damage to skin in less than twenty minutes utilizing a layer-by-layer application and building procedure similar to the function of a 3D printer. A smaller, more mobile unit could be utilized by ambulances and first responders when there is no time to reach a facility with full equipment.

In short, this is far more than just a fabricator of synthetic, living tissue. This is the creation of hope for those who have been critically injured. This could be the mythical Fountain of Youth.

PORTABLE REGENERATION CRADLE



FULL REGENERATION CRADLE



AVENGERS HQ

AVENGERS TRANSFER NOTICE HIGHEST PRIORITY

MOVEMENT: DR HELEN CHO—SEOUL
TO NEW YORK



Please arrange transportation ASAP for Dr. Cho from South Korea to HQ in New York. Avengers field team is en route from Sokovia. Barton needs the full treatment.

—Tony Stark



AVENGERS HQ

AVENGERS TRANSFER NOTICE HIGHEST PRIORITY

MOVEMENT: DR HELEN CHO—SEOUL
TO NEW YORK



Dr. Cho, it is my great honor to invite you to move your operations to the safety and security of our new upstate New York facility. You'll have all the resources you need as well as the highest security and technology available.

I believe you and your team can do great things.

—Tony

(GEOTAG)

>SOKOVIA

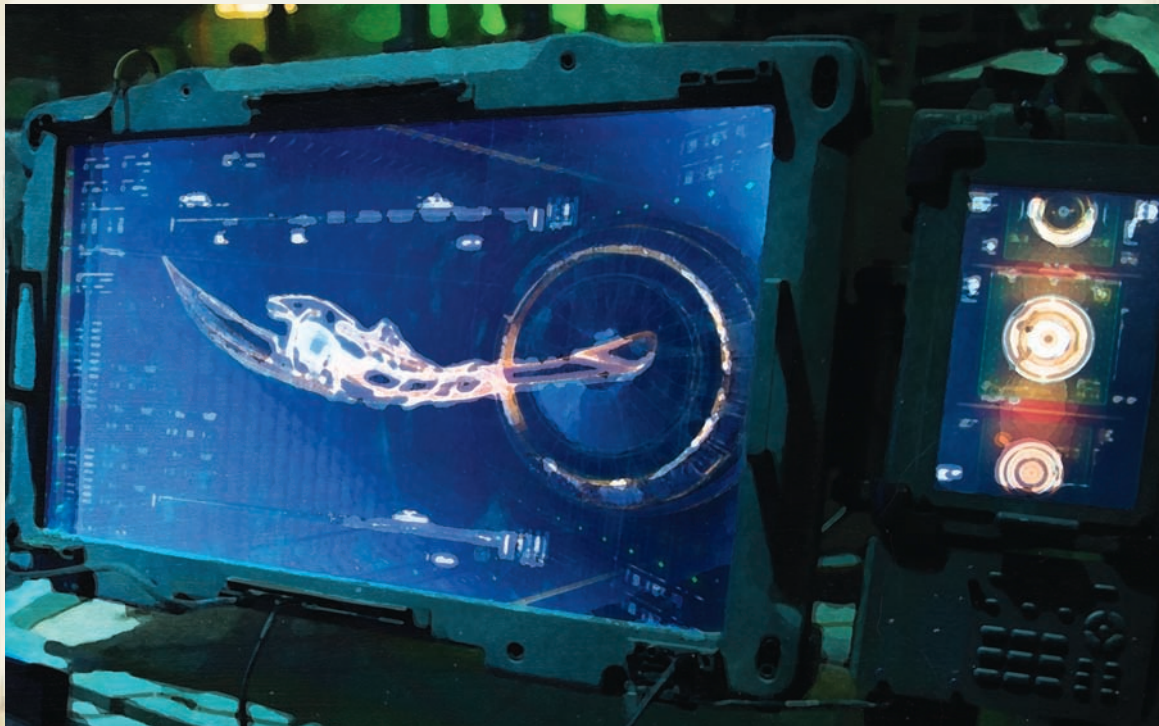
DR. LIST,

THE JEWEL WITHIN THE SCEPTER OBTAINED FROM OUR DOUBLE AGENTS WITHIN S.H.I.E.L.D. HAS IMMENSE, UNTOLD POTENTIAL. WE NOW POSSESS THAT WHICH SCHMIDT SPECULATED WAS LEFT FOR US BY THE GODS. YOU MUST MAKE IT YOUR PRIORITY TO DETERMINE THE CONCEIVABLE APPLICATIONS OF THIS . . . DARE WE EVEN CALL IT TECHNOLOGY? CAN THAT WHICH IS SO POWERFUL ADHERE TO SUCH MUNDANE CRITERIA? ENERGY, WEAPONIZATION, PERHAPS EVEN BIOLOGICAL EFFECTS SHOULD ALL BE POSSIBLE WITH THIS DEVICE.

WE HAVE PREPARED THE SOKOVIAN FACILITY FOR THE PURPOSES OF RESEARCH AND DEVELOPMENT. THE FACILITY WILL PROVIDE THE SECRECY AND ISOLATION NECESSARY. IT IS REMOTE ENOUGH THAT IF ALL OTHER FACILITIES REMAIN ACTIVE, WE SHOULD BE ABLE TO CONDUCT OUR WORK UNDISTURBED. WE HAVE AMASSED WEAPONRY FOR MODIFICATION PURPOSES THAT WOULD HAVE MADE ZOLA ENVIDIOUS.

THE LOCATION SHOULD ALSO PROVIDE SUITABLE SUBJECTS WITH THE APPROPRIATE GENETIC MARKERS TO MAKE THEM CONDUCTIVE FOR HUMAN TRIAL VOLUNTEERS. THIS IS THE AGE OF MIRACLES, AND WE ARE THE MIRACLE WORKERS.

-STRUCKER



(HYDRA PERSONAL FILES AND OBSERVATIONAL NOTES)

> SUPERVISING EXAMINER: DR. LIST

AFTER THEIR INITIAL EXPOSURE TO THE SCEPTER'S ENERGY, THE TWINS SHOW ASTONISHING IMPROVEMENT. THEIR OWN TENACITY, A SHARED ABHORRENCE FOR TONY STARK AND ALL THAT HE REPRESENTS, AROUSES THEM IN WAYS OTHER SUBJECTS NEVER DEMONSTRATED. PERHAPS THAT IS WHY THE OTHER SUBJECTS FAILED AND PERISHED? THEY LACKED CONVICTION. THE ENEMY OF THE TWINS IS OUR ENEMY. AND THAT MAKES THEM, AND US, STRONG.

PIETRO'S METABOLISM INCREASES DAILY, AS DOES HIS SPEED. WE HAVE CLOCKED HIM AT 400 METERS PER SECOND. HE HAS BROKEN THE SOUND BARRIER AND GROWS CLOSER TO TRAVELING AT THE SPEED OF LIGHT BY THE DAY. THERMOREGULATION SHOWS EXPONENTIAL GENERATION OF HEAT AND ENERGY, ESPECIALLY WHEN HE IS MOVING AT HIS PEAK VELOCITY. EVEN WHEN PLACED IN AN ICE BATH, HIS HOMEOSTASIS REMAINS CONSISTENT DESPITE THE FREEZING WATER. IT WOULD SEEM THAT THE STONE IONIZED HIS NERVOUS SYSTEM. HE CONDUCTS AN ELECTROSTATIC CURRENT THROUGHOUT HIS BODY, WITHOUT ANY OF THE EFFECTS OF ELECTROPORATION. THE RESULTING EXPULSION OF THAT ENERGY IS A SUPER-SPEED UNLIKE ANYTHING EXHIBITED BY A HUMAN BEING.

WANDA'S CONTINUED PROGRESS IS VASTLY DIFFERENT FROM HER TWIN BROTHER. EVEN I DON'T BELIEVE THIS IS THE FULL EXTENT OF HER POTENTIAL. THE STONE SIMILARLY TRANSFORMED HER NERVOUS SYSTEM, BUT IT HAS IONIZED AND CHARGED IT IN WAYS THAT HAVE GIVEN HER AN EXTRAORDINARY ABILITY. NEURAL-ELECTRIC INTERFACING ALLOWS HER TO CREATE BURSTS OF EXTREME ENERGY USING ONLY HER MIND AND THE TIPS OF HER FINGERS. THE MANIPULATION OF THIS ENERGY PERMITS HER SHORT BURSTS OF LEVITATION, IN ADDITION TO A STAGGERING WEAPON THAT ONLY REQUIRES HER BARE HANDS.

WHAT IS BEGUILING IS HOW WANDA'S NERVOUS SYSTEM HAS ALSO UNLOCKED POTENTIAL FOR TELEKINESIS. THESE ARE NOT PARLOR TRICKS; SHE IS NOT JUST BENDING SPOONS. SHE CAN MANIPULATE MINDS AND PLANT SUGGESTIVE THOUGHTS, EVEN ENHANCE PREEXISTING PARANOIAS. SHE CAN SEE INTO THE MIND OF A HUMAN, FIGURE OUT WHAT THEY FEAR AND WHAT WILL MOTIVATE THEM. IT IS POSSIBLE THAT SHE MAY SUBVERT THE EFFECTS OF MIND CONTROL CAUSED BY THE SCEPTER, WHICH COULD REVERSE THE MIND-CONTROLLING EFFECTS OF THE STONE ITSELF. PSYCHOLOGICAL WARFARE. THAT IS WHAT WE ARE FULLY CAPABLE OF WITH A TOOL LIKE HERS AT OUR DISPOSAL.



SHURI-KIMOYO DICTATION

AUDIO-VIDEO FILE ID#: 753-28_PS_RHINO_LN.wav

FILED UNDER: ADVANCED TECHNOLOGICAL R&D>RHINO CHARGE>MIND_STONE

TRANSCRIPTION OF AUDIO:

These Infinity Stones are quite an enigma. The Mind Stone gave life and intelligence to Vision, and enhanced biological powers to the Maximoff twins. But how? Let me think through this one out loud for a second.

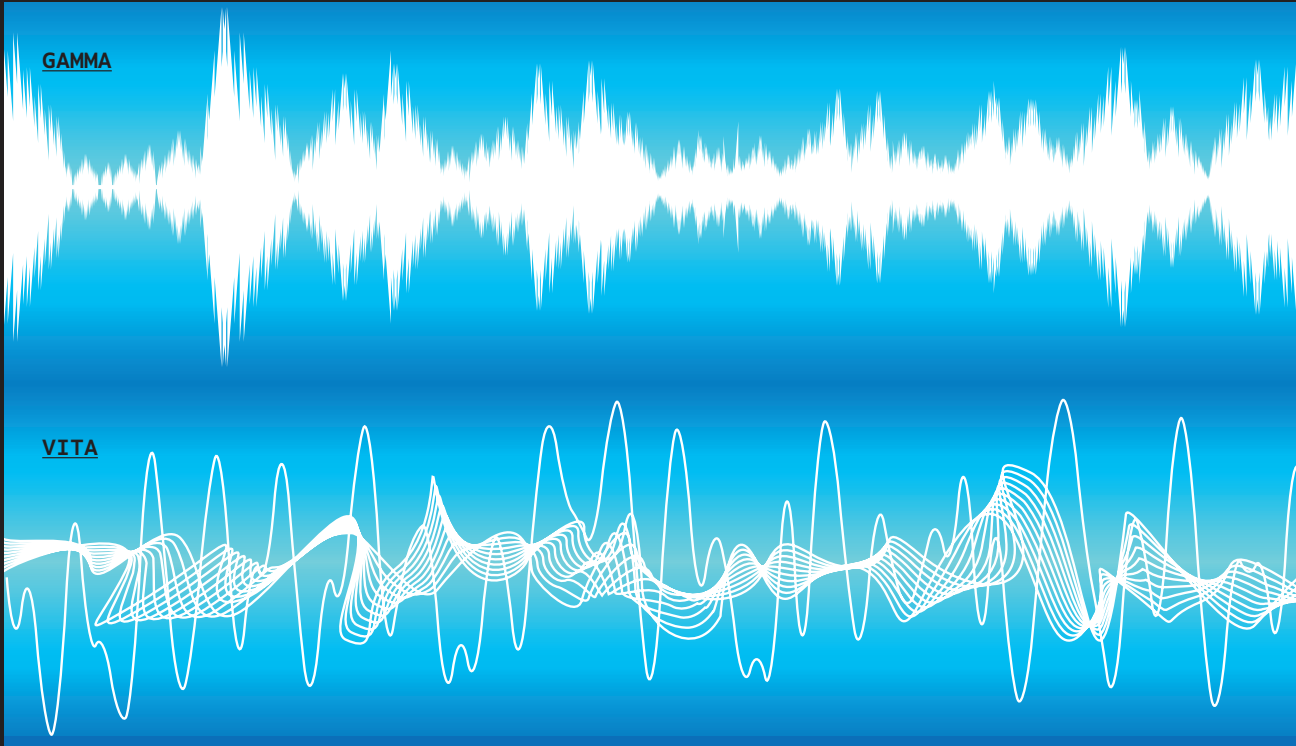
Schmidt's transformation failed because his serum lacked radioactive exposure. Rogers was exposed to Vita-Rays. Banner became a massive rage monster because he was subjected to gamma radiation. It is likely that Zola utilized gamma radiation from the Tesseract to enhance Barnes. Dr. List had figured out a way to expose subjects to whatever cosmic rays the Mind Stone emits and it transformed them.

How is massive amounts of radiation linked to superhuman abilities? Does the Mind Stone emit a type of radiation? The heart-shaped herb produces the same enhanced effects without the need for radiation. So where do the two methods diverge and what links them?



GAMMA

VITA



AVENGERS HQ

INCIDENT REPORT

LAGOS, NIGERIA
WANDA MAXIMOFF



As requested, a further follow-up to the incident, which continues to be investigated. Our team responded to a biological threat at the IFID. In the skirmish that followed, I arrived on the scene as Captain Rogers had detained Brock Rumlow, and was in process of interrogation. Rumlow activated a suicide bomb attached to his person. Acting purely on instinct, I formed a containment field in effort to enclose the blast. I attempted to redirect it away from collateral damage to the best of my ability. Unfortunately, I was only capable of redirecting the blast momentarily. The concussive explosion damaged a nearby building, directly causing twenty-six civilian casualties.

On a more personal note, there are some times in the heat of a moment when you have to react without hesitation. This was one of those moments. I regret the damage caused and the lives lost. I felt the anguish instantaneously, and I will carry the accountability for those losses with me for the rest of my days.



DRAFT

SOKOVIA ACCORDS

FRAMEWORK FOR THE REGISTRATION
AND
DEPLOYMENT
OF
ENHANCED INDIVIDUALS



THE WHITE HOUSE

Washington, D.C.

UNITED STATES AIR FORCE
EXECUTIVE MANDATE/GLOBAL TRAVEL MEMO
SECRETARY OF STATE: ROSS, THADDEUS

Mr. Secretary,

Attached are your formal orders and your travel itinerary for immediate flight to the Avengers headquarters. My team has delivered a copy of the full and complete Sokovia Accords to your assistant.

I personally discussed the sanction of these Accords with Stark this afternoon. He is on board, understanding the need for this measure, and has agreed to act as our advocate if needed. Rogers and the remainder of the Avengers must sign and register before the formal ratification in Vienna. It would be regrettable, but anyone who does not comply will need to be decommissioned and immediately cease all function as an Avenger, at risk of being detained.

Good luck. I expect your full written report on my desk by morning.

President Ellis

PIETRO AND WANDA MAXIMOFF





WAKANDA ROYAL ARCHIVES

ADVANCED SCIENCES AND TECHNOLOGIES RESEARCH REQUEST FORM

DIRECTIVE:

Gather all intelligence reports, documentation, acquired files, news articles, and any other archival materials that could be classified as weaponry or utilized as defensive systems.

REQUEST CONTACT:

Shuri, Head of Science and Technological Development

INITIATIVE, CLEARANCE, AND CLASSIFICATION CODE:

RHINO CHARGE [ENCRYPTED THUMBPRINT PROVIDED]



DATE NEEDED:

ASAP

ARCHIVIST NOTES:

The cultivation and accumulation of all topics and materials regarding weaponry on Earth is immeasurably large. For this reason, we were selective in our pull. We limited our search criteria to the instruments, technology, and defensive systems utilized by the Avengers and their greatest enemies.

Materials pulled from the following:

Public records and media outlets

War Dog Files: Hydra

War Dog Files: Stark Industries

War Dog Files: S.H.I.E.L.D. (highest clearance)

War Dog Files: CIA

As stated previously the archives team will continue monitoring for updates. Any specific materials that were left out of this selection, please do not hesitate to let us know.

This is a satisfactory scope as a start for this exploration. We can expand our inquiries as needed based on what we find.

DOCUMENT

32236-REQ

FILES PERTAINING TO: VIBRANIUM SHIELD AND VARIATIONS



Colonel Chester Phillips
United States Army
Director, Strategic Scientific Reserve
Washington D.C.

Colonel Phillips,

We here at Stark Industries are pleased that Captain Rogers chose our vibranium prototype as his accessory of choice. We expected him to take a model with electrical relays, but this is a solid alternative. And we do mean solid. It should go without saying, but I will anyway: this is a far cry from the tin-and-brushed-copper costume piece of scrap the USO provided him.

Vibranium is the strongest metal on this planet, and one of our rarest. It's stronger than steel, at less than a third of the weight. Completely vibration absorbent. Because of that, it's also entirely bulletproof. We have confidence that no matter what the weapon, this shield will be able to absorb its energy and deflect attack.

In addition to its defensive capabilities, it can also be one hell of a weapon. The strength of the metal comes in handy during hand-to-hand combat. Because of the shape and design, it achieves aerodynamic lift and a little gyroscopic precession when thrown. This is an unexpected function of the shield, resulting from the torque at which Rogers is able to hurl the object. The shield can bounce off an object (or several) and still return to the thrower's hand.

With a little bit of training and quite a bit of practice, it will be incredible to see what Rogers can do with this metal.

Howard Stark

*A rather simplistic application
of an extraordinary material, but
given what Steve Rogers was
able to do with it, it's fitting.*

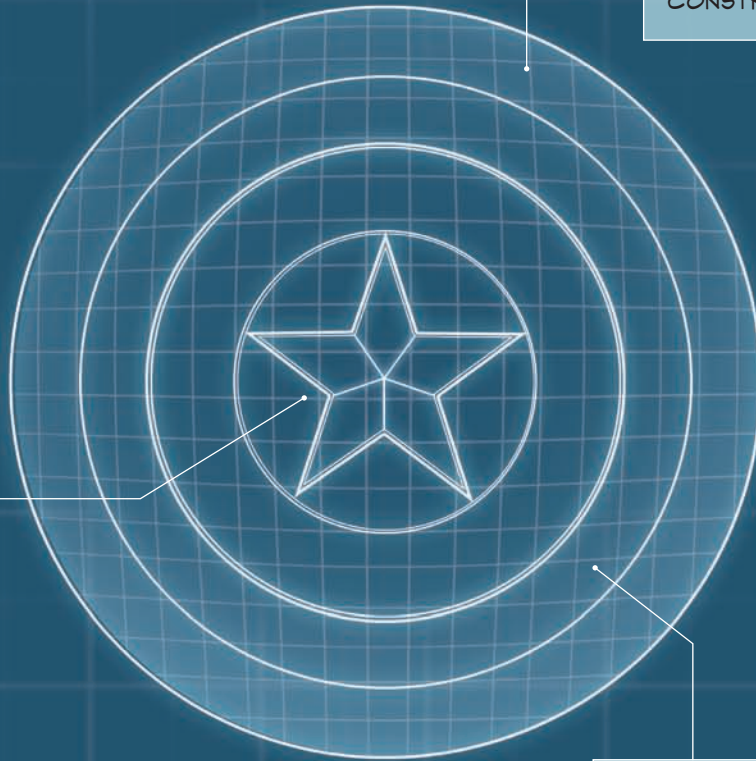
CAPTAIN AMERICA'S SHIELD

BALANCED IN BOTH DEFENSIVE AND OFFENSIVE CAPABILITIES. MADE FROM VIBRANIUM, ABSORBS AND REFLECTS KINETIC ENERGY. THE SHIELD'S CENTER IS HIGHLY DEFLECTIVE, ABLE TO REDIRECT FLYING PROJECTILES.

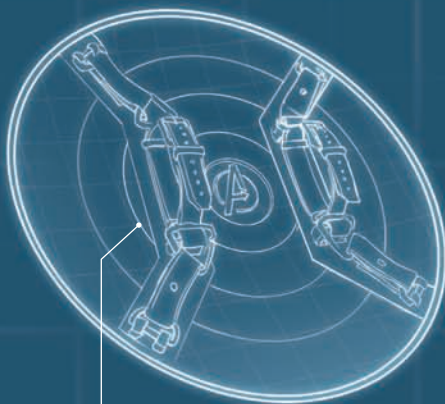


CONCAVE
DISK-SHAPED
VIBRANIUM
CONSTRUCTION

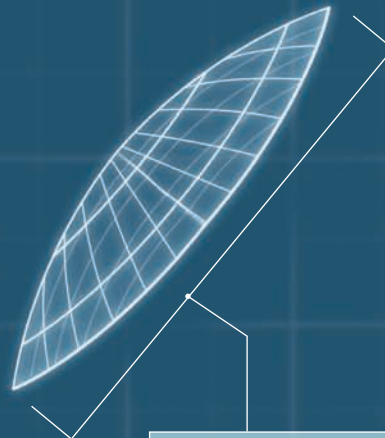
AT ROGERS' REQUEST, WE'RE ADDING A STAR AT THE CENTER. FIGURE IF THE WHOLE THING LOOKS LIKE A BULLSEYE, WHAT'S THE DIFFERENCE?



MULTI-RING
ASSEMBLY
(ALTERNATING
RED AND
BRUSHED
VIBRANIUM)



ADJUSTABLE ARMS AFFIXED
TO REAR OF SHIELD AT
BASE (REAR VIEW)



2.5 FT. DIAMETER





United States Department of State
Secretary of State
Washington, D.C. 20520

ARGUMENT FOR THE CREATION OF SOKOVIA ACCORDS Secretary of State Ross

While reviewing the intelligence gathered on the incident in Sokovia, we pulled data on Ultron's ultimate endgame. Was the destruction he could have caused comparable to the damage that was done? I have to say, it has been an eye-opening experience.

By his own account, Ultron intended to re-create "God throwing a stone at Earth." Science suggests that if it was a meteor that struck Earth and wiped out the dinosaurs, it would have been at least six miles in diameter. It is a safe estimation that the entire city of Sokovia impacting the ground from a great height had the potential of sending us into another Ice Age.

With the assistance of a decommissioned S.H.I.E.L.D. Helicarrier and several lifeboats, the Avengers were able to evacuate the majority of the Sokovian residents. They worked together to keep Ultron and all of his sentries from executing their plan.

The Avengers stopped an extinction-level event and saved countless lives. But in the process, they also have marred our international reputation with an already volatile nation. Despite the best efforts, loss of life is still unacceptable. The Avengers are Earth's mightiest heroes. This is true. But they are also dangerous and must be held accountable for their actions. Enhanced individuals who ignore sovereign borders and act of their own desire must be checked. It is my recommendation that we draft an accord to check the Avengers' activity before the collateral damage escalates. We must have a framework in place for the registration, maintenance, surveillance, and deployment of enhanced individuals before it is too late. The United Nations should have a say in what, where, and when the Avengers assemble and act. We must regain control.





UNITED STATES GEOLOGICAL SURVEY

Directional Survey — City of Sokovia (In Regards to Ultron Incident)



VITAL STATISTICS:

Drill's Measured Depth (MD):
2,380 Meters From Land Surface

City Diameter (D): 6,430 Meters
Drill Inclination: 0°

VIBRANIUM SHIELD AND VARIATIONS

SHURI-KIMOYO DICTATION

AUDIO-VIDEO FILE ID#: 753-29_PS_RHINO_LN.wav

FILED UNDER: ADVANCED TECHNOLOGICAL R&D>CHARGE>ULTRON

TRANSCRIPTION OF AUDIO:

I am saddened that it was this event that led Baba to address the rest of the world. Conceivably causing his death. That loss leaves a great sting and will for a great period of time. Yet, death is not the end of our journey. Baba walks on our ancestral plane. It is necessary to have these reminders for moments of reflection and pause. Was Baba right? Was he wrong? I am still not certain.

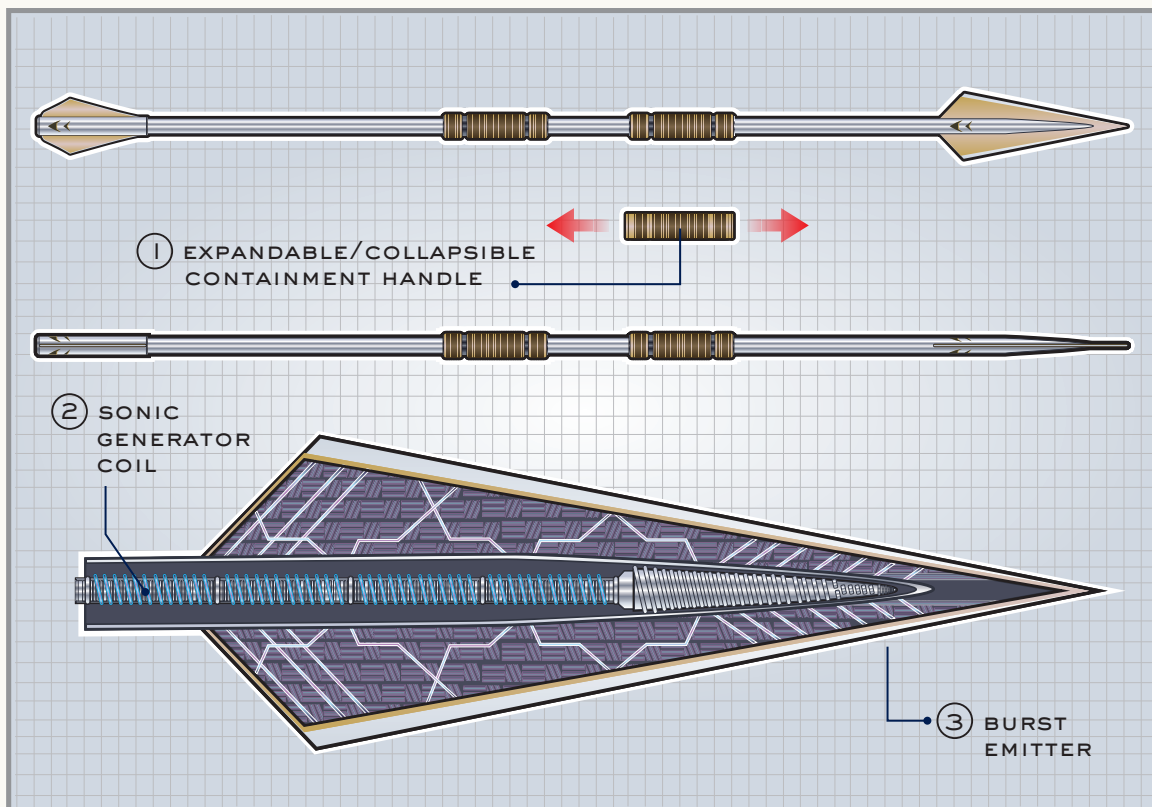


WAKANDAN DESIGN GROUP

DORA MILAJE VIBRANIUM SPEAR FUNCTIONALITY OUTLINE

The durability and lightweight nature of the vibranium makes these spears effective weapons and standard-issue for all Dora Milaje. The design group has proposed the following modifications to the standard-issue weapon to increase its performance and efficiency.

- ① The release of a collapsible mechanism fully engages the staff from a compact footprint to an extended length, increasing the strike area of the weapon.
- ② Utilizing similar technology to that of the Black Panther armor, the spears can be retrofitted with kinetic absorption capability. This allows the containment and redistribution of energy received as the carrier sees fit.
- ③ From an offensive perspective, sonic emitters have been added to the spear tips giving them a vital secondary functionality. This allows an offensive strike from a distance without engaging in hand-to-hand combat.





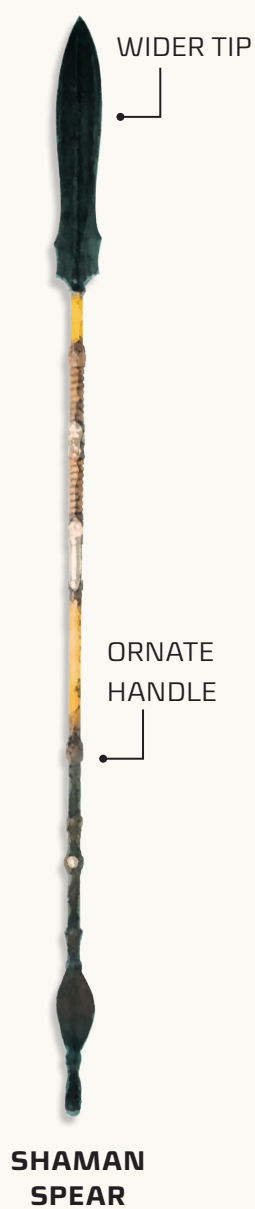
WAKANDAN DESIGN GROUP

VIBRANIUM SPEAR VARIATIONS

General,

Please find prototype variations for your use and approval within your arms cabinet. We are confident that you will find the results more than satisfactory. As always, we are receptive to your feedback for improvements.

—Shuri





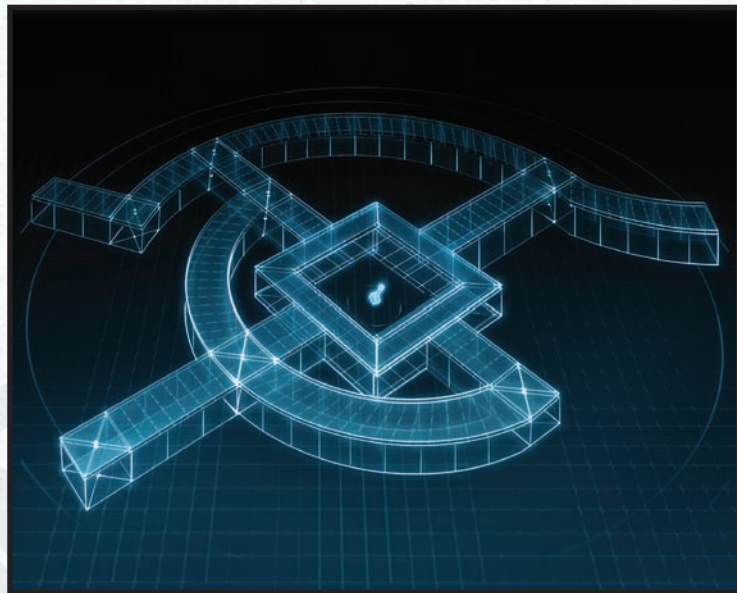
S.H.I.E.L.D.
MISSION

PUENTE ANTIGUO, NEW MEXICO



9374378438749484

Upon arrival at the impact site near Puente Antiguo, New Mexico, we immediately established a containment perimeter around the fallen object. The science division wants to collect it for analysis, but according to locals, the object is completely immovable. They will have to bring their equipment to it. Additionally, it is feasible that this object will be of interest to our enemies. Security around the area should be increased to Level 5 and above. As mentioned, many of the locals have taken an interest in the object. We'll need to monitor incoming and outgoing communications for possible leaks. It is also possible we'll need to start devising a cover story. The old Sputnik routine, maybe? That's always a fun one.



AMENDMENT 1:

Initial scans with field equipment show that the object is extraterrestrial, with metallurgy that is unidentifiable. It is carbon-based, with traces of hydrogen and helium. If I didn't know better, I'd think this was a dark star fallen to the surface. But it's evident that it's a hammer—see attached photos.

The design of the hammer has elements that suggest Vikings. Initial thought was that we might be getting Punk'd by the locals, but it's the real deal. Visually, it is a square head attached to a leather-wrapped handle with a leather wrist sling. There are markings around the outer edges of the head. I'm a little rusty. My archaeology courses were long ago. But I think they may be Old Norse in origin.



PUENTE ANTIGUO, NEW MEXICO

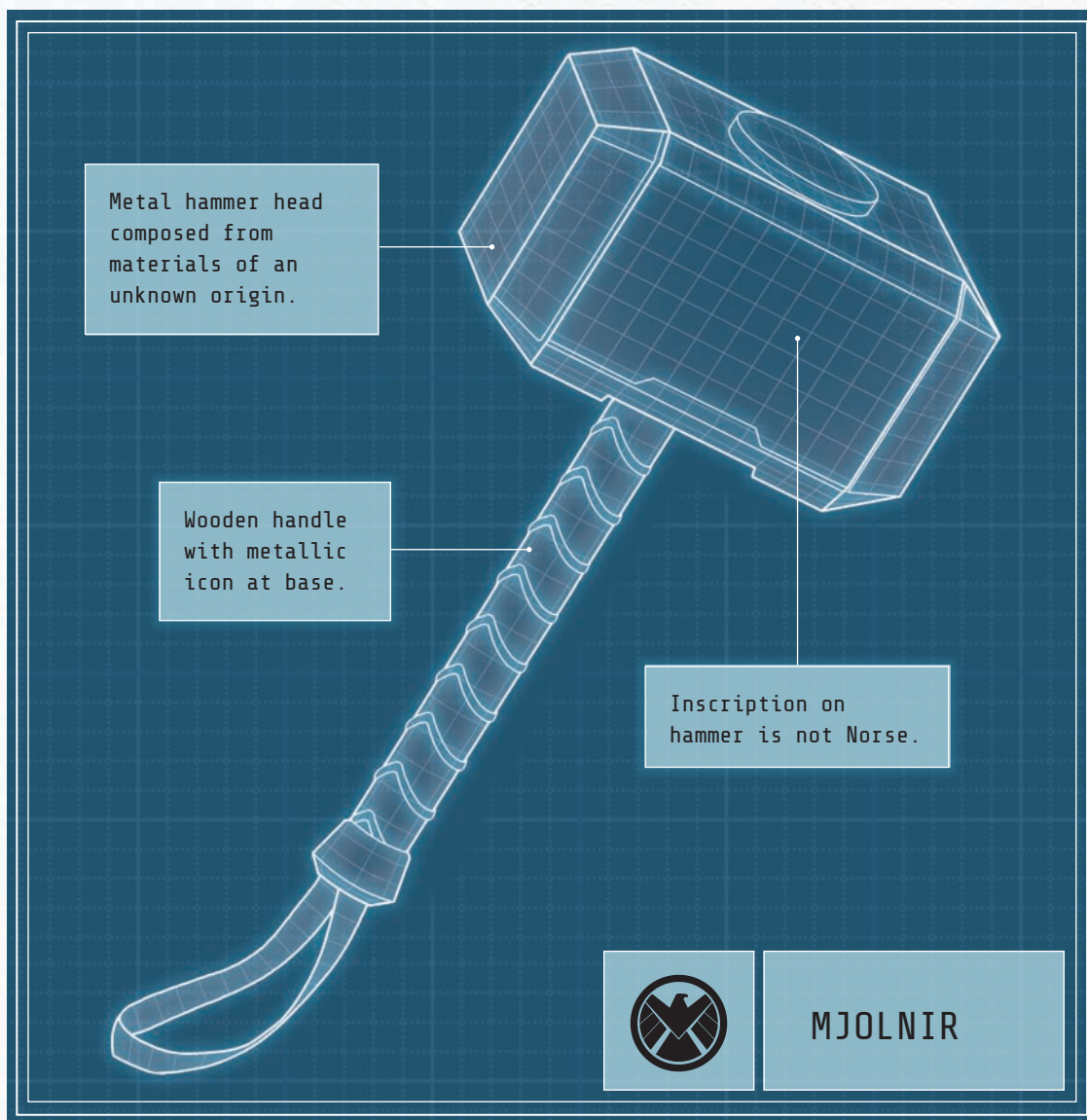


9374378438749484

AMENDMENT 2:

There has been electromagnetic interference wreaking havoc on our instrumentation. It fluctuates based upon atmospheric conditions. Luckily, we haven't hit New Mexico's infamous monsoon season quite yet, but for some reason this hammer attracts and conducts ionic charges from cloud cover like a super-conducting lightning rod.

*Thor's weapons
are forged in the
heart of a dying
star. Imagine the
transferral of a
star's energy to
vibranium . . .*



MJOLNIR

AVENGERS HQ

PERSONNEL FILE UPDATE THOR, GOD OF THUNDER



Thor now wields a weapon known as Stormbreaker. This handheld weapon was forged in the mythical foundry of Nidavellir by channeling the energy of a dying star through an aperture with the assistance of Eitri, the King and sole survivor among the Dwarves.

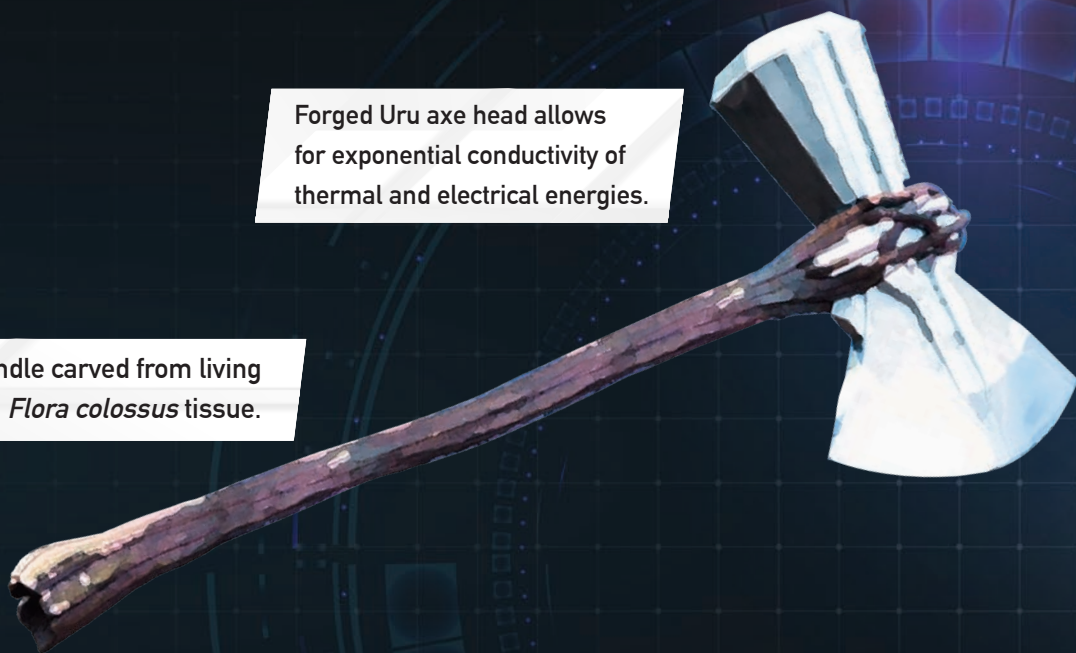
Thor and Eitri focused the star's energy through an iris that melts a metal known as Uru. Uru requires a temperature of 50,000 K to liquefy. This is the same procedure in which Thanos forced Eitri to create his Infinity Stone housing gauntlet.

Stormbreaker allows Thor to access the Bifrost, his mode of intergalactic travel. This is an Einstein-Rosen wormhole/bridge that allows travel through space-time.



Forged Uru axe head allows for exponential conductivity of thermal and electrical energies.

Handle carved from living *Flora colossus* tissue.



AVENGERS HQ

PERSONNEL FILE UPDATE THOR, GOD OF THUNDER



In initial recruitment assessments, it was stated that Thor's ability to summon and control thunder and lightning from storm clouds necessitated the use of Mjolnir. This no longer is the case. Rather, based upon observations of him using Stormbreaker, it appears the ability to mobilize the elements is within his person. His weapon of choice acts only as a conduit. There is a psychic or telekinetic connection through these weapons that magnify his abilities. This might be why Thor has said on more than one occasion that if one of us were to wield Mjolnir, there is a chance that even holding the weapon would crumble our minds into madness. The psychological effects of the weapon on a mere mortal could be catastrophic.





WAKANDAN DESIGN GROUP

KIMOYO BEAD ELECTROMAGNETIC PULSE GENERATOR ADD-ON

It is with pride the Wakanda Design Group presents a new function for the Kimoyo bands: a new-and-improved electromagnetic pulse (EMP) generator and emitter.

This EMP has the ability to exert a free-magnetic field of 30–50 kV/m, at a range of about 200 horizontal or vertical meters, depending on how it has been configured through the holographic interface. The range and amplitude of the pulse is a vast improvement over the previous model's radius of a mere 50 meters.

This magnetic field disables all microprocessors and circuitry within the radius of the pulse. Antennas, cables, or any other metallic conductive materials will act as amplifying conduits for the magnetic pulse.

The use of one bead can easily disable a single automobile or an entire convoy as necessary. Of special note for our reconnaissance operatives: while we have not yielded any conclusive results, simulations on various types of hard drives has destroyed or corrupted the contents of traditional and solid-state drives. Should information need to be extracted from computing devices, it should be done prior to the use of the EMP.

Please take precaution and care to avoid having any vulnerable technology near the blast. Any inadvertent catastrophe is not the fault of the design group.



KIMOYO BEAD GUIDE



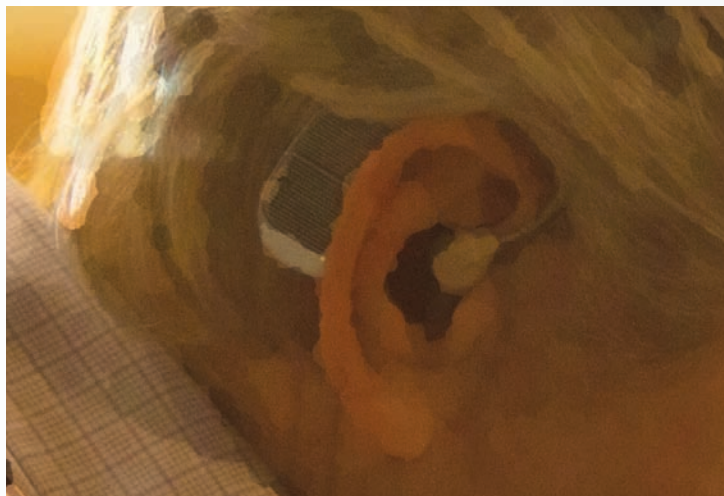


HANK PYM PERSONAL JOURNALS

EMP INSECT COMMUNICATION DEVICE

I'VE READ SOME FASCINATING REPORTS STATING EXPOSURE TO A MAGNETIC OR ELECTRICAL FIELD OPERATING AT 30 kV/m HAS HAD SOCIAL BEHAVIORAL EFFECTS ON BABOONS IN FIELD STUDIES. IS IT POSSIBLE THAT OPERATING DEVICES AT THIS INTENSITY WOULD MAKE INSECTS MORE SUSCEPTIBLE TO CONTROL AND SUGGESTION? IF I WERE TO CONNECT AN INPUT DEVICE OF MY OWN, A MICROPHONE OR AN EARPIECE WITHIN THE ANT-MAN HELMET TO EMIT ELECTROMAGNETIC PULSES AT THIS VOLTAGE, WOULD IT ALLOW ME TO COMMUNICATE WITH ANTS? AS ANTS COMMUNICATE THROUGH SMELL AND PHEROMONE EXCRETION, IF I'M ABLE TO TRICK THEIR OLFACTORY RECEPTORS INTO BELIEVING MY COMMANDS ARE PHEROMONE CUES, IT MIGHT BE POSSIBLE TO SPEAK WITH THEM. IN FACT, I MIGHT BE ABLE TO CONTROL A WHOLE COLONY AS A COLLECTIVE CONSCIOUSNESS.

THE DOWNSIDE, OF COURSE, IS THAT THERE MAY BE UNEXPECTED AND UNPLEASANT RESULTS WITH CONDUCTIVE CIRCUITRY OR SOLID-STATE DEVICES. IF I OPERATE THE DEVICE AT LOWER EMISSIONS, SOMEWHERE AROUND $15\text{--}20 \text{ kV/m}$, IT SHOULD REDUCE THE RISK OF FRYING ELECTRONICS AROUND THE EMITTER WHEN IN USE.



FILES PERTAINING TO: "WHIPLASH" WEAPON TECHNOLOGY

STARK INDUSTRIES

REVERSE ENGINEERING SERVICES REPORT

ASSESSMENT OF: IVAN VANKO WEAPON — MK. I ATTENTION: STARK, TONY

The R.E.S. has concluded its evaluation of Ivan Vanko's technology as confiscated in Monaco and has yielded the following assessments:

- Vanko has created his own miniature, chest-sized Arc Reactor at the center of the device, which channels raw and unfiltered energy through ionized plasma coils and electromagnetic conductors to two whip-like weapons. Conductive material lines the blades of the shoulder harness structure. When active, the highly unstable device elicits stray electric current and emits a fair amount of heat, burning clothing and skin. It is a wonder the whole thing did not catch fire the minute it was activated.
- Benchmark evaluation of the reactor unit indicates that it is inefficient. Performance measures it as only half as effective as the first miniaturized reactor created by Mr. Stark in Afghanistan.

For reference, here are the results of the benchmark reactor tests:

Cycles per Second: 44.1 kHz

Plasma Capacitance: 3088.2 μ F

Repulsor Energy Output: 1.49 GJ/sec





UNITED STATES OF AMERICA
MARINE CORPS SYSTEMS COMMAND
QUANTICO, VIRGINIA

MISSION DEBRIEF: STARK EXPO INCIDENT
Lt. Col. James Rhodes

Major General Meade,

The attack on the Stark Expo by Ivan Vanko was a stunning display of what would occur should the Iron Man technology fall into the wrong hands. I understand the situation was exacerbated by Justin Hammer and his ineptitude, but the speed at which the enemy revised and refined technology to be used against us was astounding.

Vanko made a pretty impressive display of his prototype at the Monaco Grand Prix. But let me tell you, his second attempt at armor was pretty formidable. While the weaponry we saw demonstrated on the racetrack looked unstable and precarious, the revision he utilized at the Expo appeared to operate far more efficiently. I'm no scientist, but it packed a helluva punch. His prototype whips could cut through steel like a hot knife to butter. The 2.0 version was no different. In addition, they had a motorized retracting mechanism that felt a whole lot like being a salmon caught on a hook being reeled in.

We were lucky that we had more than one enhanced suit of armor on the field fighting for us that evening. Once Stark counteracted the programming in my War Machine suit and I was able to regain control, it was a fine demonstration of how a USAF-operated suit could be of assistance.



FILES PERTAINING TO: DRONE INFANTRY

new message



To: R&D, Technologies, Defense, and Weapons Programs (Global)

Subject: Expedited Manned Suit Prototype Trials

Okay kiddies, playtime is over. With Stane out of the picture at Stark Industries, we need to go in for the kill. Taking over as the number one defense contractor not just to the United States but to the highest bidder around the world is our top priority. How? We must make Iron Man look like an antique. Our manned suits need to be ready, and they need to be ready yesterday. Enough with the simulations. Let's get pilots in those suits. Let's take them for a spin. And let's get them to the Stark Expo so we can show that wealthy man-child how it should be done.

Justin Hammer
CEO, HAMMER INDUSTRIES



SEND



new message



To: Justin Hammer

Subject: Insufficient Personnel for Manned Suit Program Trials

Dear Mr. Hammer,

We are having difficulty finding test pilot volunteers for the manned suit program. Word of the most recent string of injuries has spread. We may need to look to commercial pilots, or even amateur volunteers, as I do not believe we will be able to enlist additional help from combat veterans or experienced military personnel moving forward. How would you advise us to proceed?

Human Resources



SEND



BID PROPOSAL – AUTOMATED DRONE UNITS

FOR ALL MILITARY DIVISIONS
DEPARTMENT OF DEFENSE CONTRACT #22-761



Mr. Secretary,

The future of military defensive and weapons systems is now. We at Hammer Industries' Advanced Weapons Systems program are pleased to present combat-ready, automated troops to replace all divisions of American soldier: Army, Navy, Marines, and Air Force.

I know what you're thinking: "Hammer, the original requisition contract was for manned suits, because we want to be like that hot-rodding billionaire flying through the sky." But unmanned and automated systems are the wave of the future. They eliminate human error and, more important, reduce human casualties. All of our drones are completely autonomous, but can be tasked and purposed from a single remote user if necessary or individually piloted from afar. One general can command his troops with the touch of a button from the safety of his house. Plus, we've just secured new resources to make sure these units are all powered by the most efficient Arc Reactor technology.

The following is what Hammer can do for the United States of America in the land, sea, and air.

So, what do you say? How many units of each branch should I put you in the books for? Tell you what: if you break a cool billion dollars in orders, I'll throw in a few additional units for free.



← ARMY

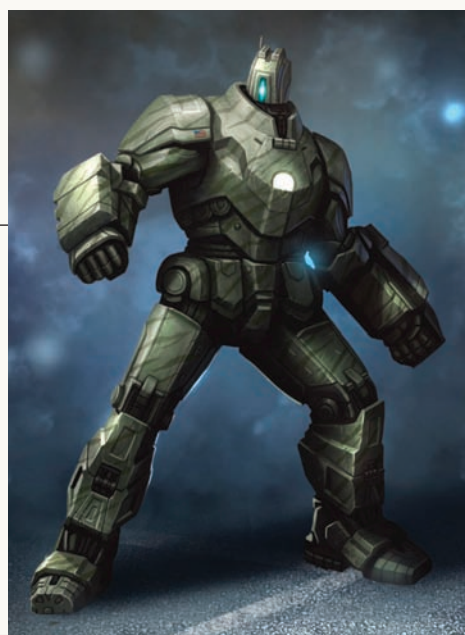
Our Hammer Army-based drones carry assault rifles and infantry-specific weapons for ground forces. The unit's feet are capable of setting up reinforcement tripods to fire anti-aircraft flak. Each unit is also reinforced with Chobham plated armor. That's the same heavy-duty composite covering used by the Brits for their tanks. This stuff can withstand a barrage of BGM-71 missiles.

[continued on next page]



← AIR FORCE

The Hammer Air Force units are built for aerodynamics and speed. We've clocked these bad boys past a supersonically hot Mach 1. And that's with the safeties engaged. Other divisions are possible with Hammer upgrades at an additional cost.



→ MARINES

With the Hammer Marine units, brute strength is the name of the game, including grenade launchers, automatic rifles, and all the latest anti-tank weapons Hammer Industries has to offer. Each of these units are super-reinforced with double-plated Chobham armor and finished off with a camouflage touch specifically suited to each combat operation.



← NAVY

The Hammer Naval units have large shoulder-mounted "Stinger Missile" torpedo cannons similar to those on a battleship. I'll even throw in the Chobham armor plating for free.

111



OPERATIVE FIELD REPORT

SUBMITTED VIA ENCRYPTED CHANNELS

Your Highness, per your orders we have been tailing Stern. As of yet, it is unclear what Hydra wanted with these drones.

CONTACT: T. BENNETT
Director of Public Relations

STARK INDUSTRIES

FOR IMMEDIATE RELEASE

Hammer Presentation Incident Clarification Stark Industries Official Statement on the Explosion and Stark Expo Events

We at Stark Industries would like to clarify some of the false news reports and speculation that has followed Justin Hammer's presentation on the Stark Expo grounds. As has been reported, Hammer Industries held an exhibition titled "In Defense of Peace" in which Hammer planned to demonstrate the abilities of his unmanned drone infantry and reveal the unauthorized Iron Man prosthesis application dubbed "War Machine." During the demonstration, the units appeared to malfunction and attack the audience as well as our own Tony Stark while in his Iron Man suit. Lt. Col. James Rhodes also lost ability to control his prototype suit. It became clear that both the "War Machine" suit and Hammer's drone units were under the influence of an unseen third-party. Iron Man intervened and successfully disabled the threat. But the resulting damage to public and private property, as well as the injuries that were caused by the panic, are unfortunate.

"It is clear that Justin Hammer and Ivan Vanko are directly responsible for the loss and damage that occurred both inside and outside of the Stark Expo grounds," said newly-appointed Stark Industries CEO Pepper Potts. "Hammer's demonstration is just another fine example of why the Iron Man application, and an armed and capable pilot to operate such a device, are a necessity. Remote piloted drones may take the risk of human pilot casualties out of the equation, but it opens the risk for interference and tampering, which proved to be the fatal flaw in Hammer's design and workflow. It is also unfortunate that Hammer chose to employ the help of a known criminal for the betterment of his bottom line."

"What can I say except only hire those that you trust," said legendary Stark Industries heir Tony Stark. "Clearly Hammer has to scrape the absolute bottom of the barrel to fill his headcount. What a shame for him, but luckily something we never have to deal with."

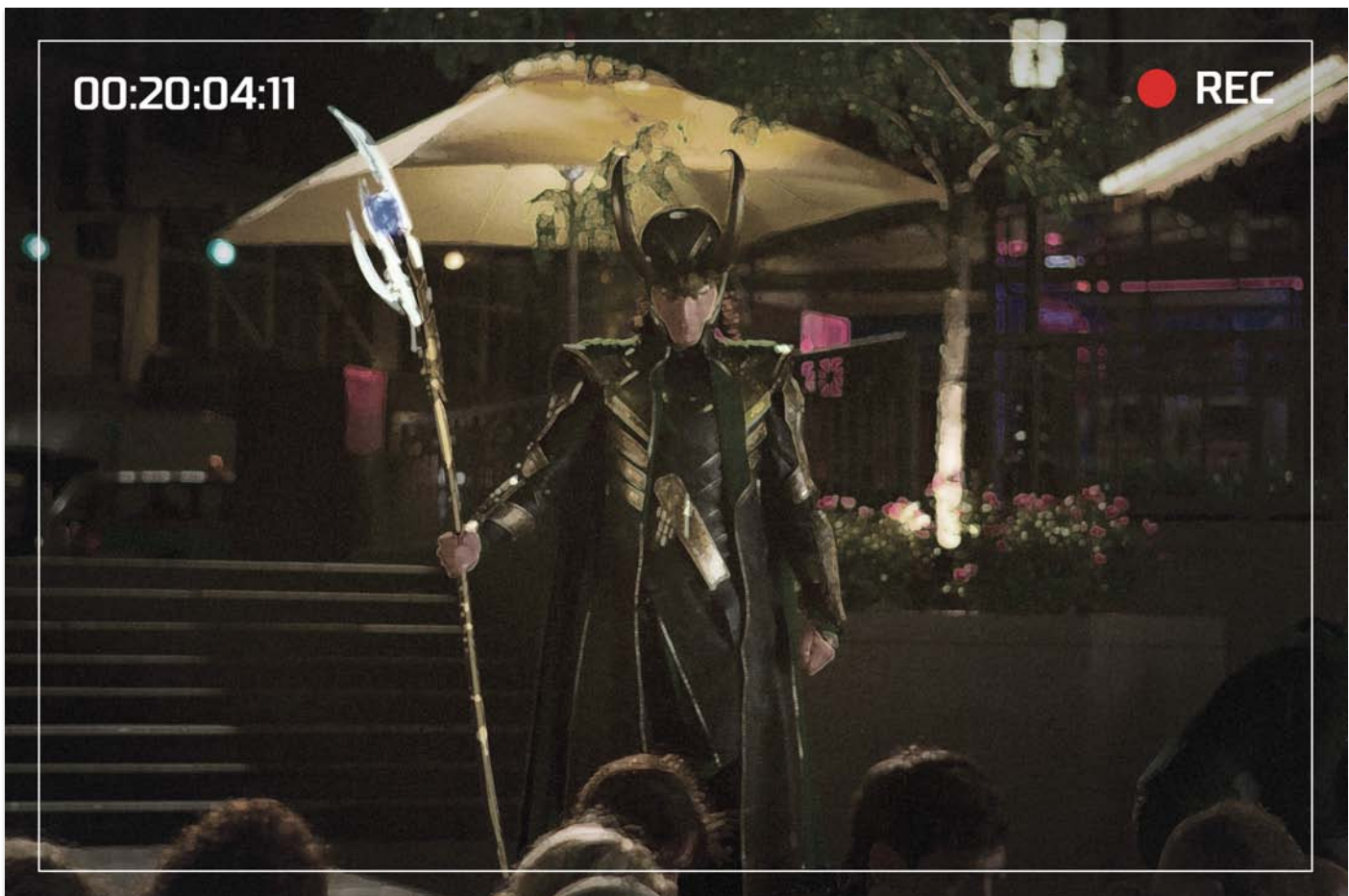
A full investigation is currently underway, and Stark Industries has vowed to cooperate with all authorities involved to ensure those responsible are held accountable. In return for attendees' patience, understanding, and cooperation, Stark Industries has also announced today that they will be compensating all attendees of the "In Defense of Peace" demonstration. They will also be covering all medical expenses and rehabilitation of those directly injured by the events.



OPERATIVE FIELD REPORT

SUBMITTED VIA ENCRYPTED CHANNELS

Your Highness, the incident in Stuttgart, Germany, occurred during an exhibition gala at the Kunst Halle Planie. The entity Loki threatened everyone on site, appearing to replicate himself into several carbon-copy duplicates. When a single man opposed Loki, he fired an energy pulse from his scepter that looked to emit from a jewel at the core of the staff's head. Image capture of the staff is included. Captain America, Iron Man, and Black Widow intervened. Loki was taken into custody by the Avengers. I was among the crowd, and my cover remains uncompromised. Awaiting further instruction.





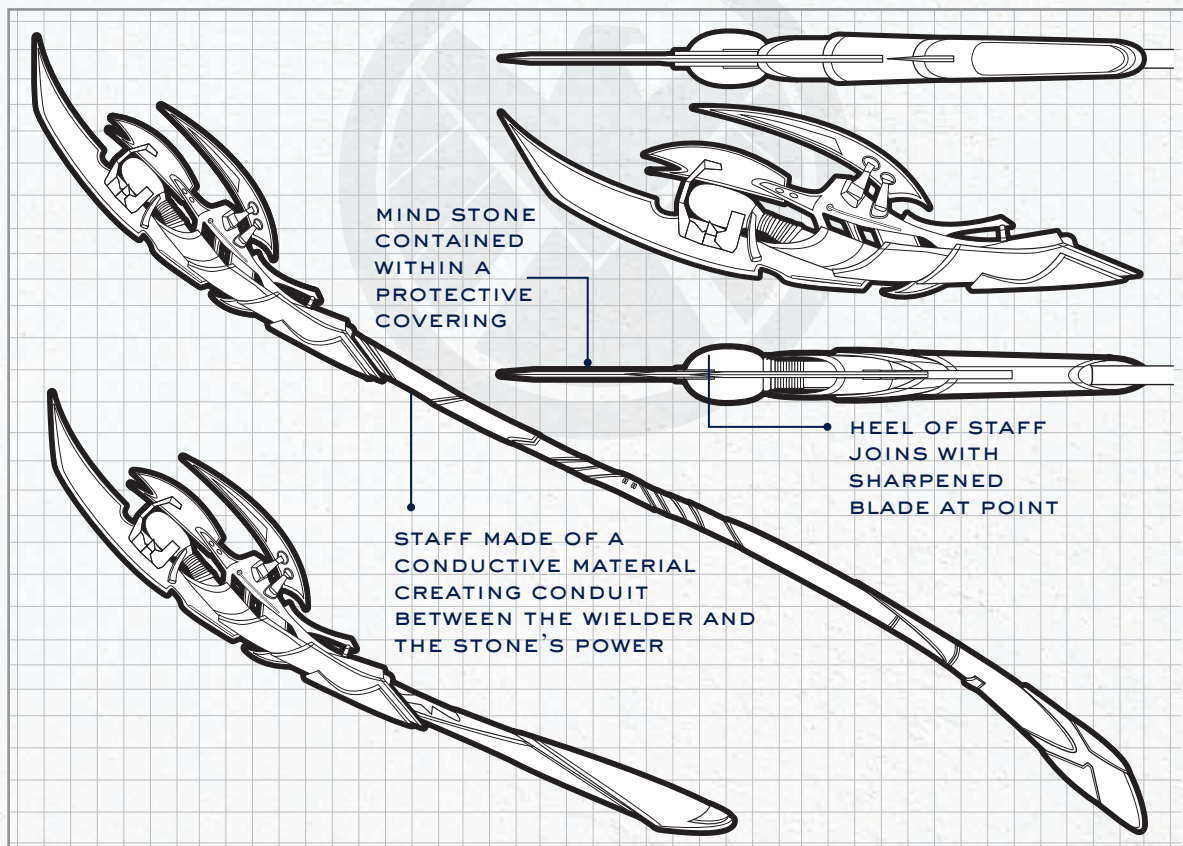
S.H.I.E.L.D. ENCRYPTED DIRECTOR COMMUNICATION



T: ROMANOFF, NATASHA
F: FURY

Barton's been compromised. Thought you should be the first to know. Hill and I were on site at P.E.G.A.S.U.S. when the Tesseract opened a portal. An intruder calling himself "Loki of Asgard" had some sort of energy weapon attached to a staff. It fired a fairly sizable blast, but also this Loki put the sharp point of the staff to Barton's chest. There was an energy transferral into his body and suddenly he was subservient. He did the same to several other agents as well as Dr. Selvig.

Recommend extreme caution.



Could the energy transfer that put these people under Loki's spell be responsible for Wanda Maximoff's mind-altering abilities?

ENCRYPTED FILE

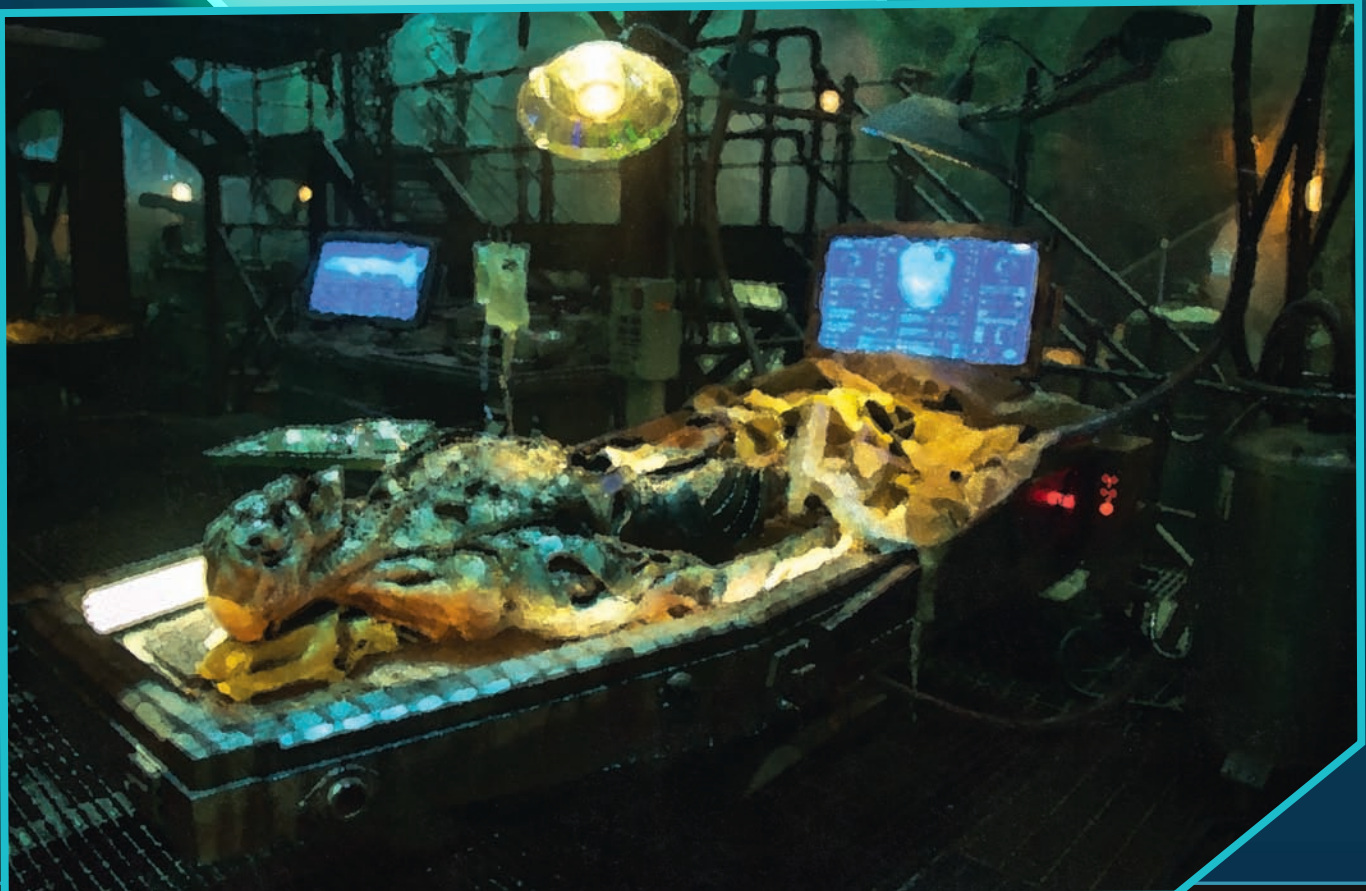
JARVIS-Information HARVEST RESULT

STARK INDUSTRIES

At right is a listing of the weapons that were a direct result of applied Chitauri technology. Or weapons that were inspired by their advancements. Many of these weapons have already been encountered during the Avengers' engagement with Hydra at the facility.

Sokovia Hydra Base Infiltration cc: Avengers HQ

At Mr. Stark's request, I have collated the data received in the transfer. Much of the data was corrupted, or had been deleted from record. The facility's primary goal was to decommission a Chitauri Leviathan and utilize the technology found inside for the betterment of their weapons arsenal.





Surface-to-Air Energy Cannons

A directed-energy weapon utilizing a Chitauri energy source for a single, large burst of energy. Tests are ongoing but initial findings register the beam charge in excess of 80 kW. Hydra also retrofitted these cannons to preexisting vehicles and tanks with reactive armor plating.



Flight Suit/Propulsion Units

Antigravity propulsion units that, when fitted on the shoulders and feet of an operative, allow brief bursts of flight. These units were accompanied by exoskeletal enhancements powered by the Chitauri core that augment the hand-to-hand combat abilities of an infantry soldier.

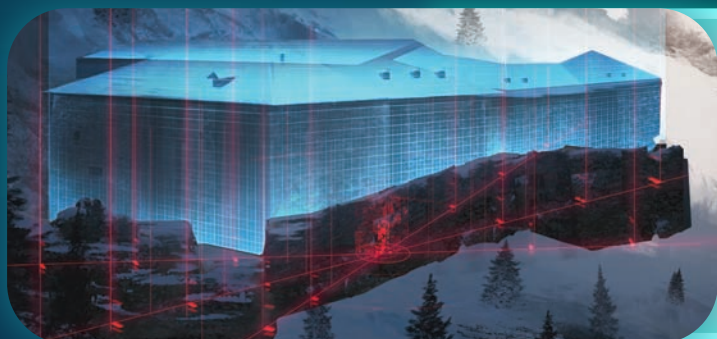
Handheld Energy Rifles

A direct iterative engineering of the Chitauri rifle. Based upon the obtained detailed specifications, Hydra research and development followed a similar procedure as S.H.I.E.L.D. in the reverse engineering and fabrication of their handheld weaponry.



Property and Facility Energy Shielding

A plasma energy shield that, much like the shielding systems employed by the Leviathan ships, can be projected over an area from a single generator point. This type of shield was encountered at Strucker's facility.



WHIH NEWSFRONT

Mysterious, Perhaps Alien, Threat Destroys Puente Antiguo

PUENTE ANTIGUO, NEW MEXICO. The ordinarily sleepy town of Puente Antiguo, known to locals for its exceptional green chile farms, and as the “Home of the Vikings,” the three-time 5A high-school football champions, will now also be known as ground zero for one of the most bizarre occurrences of the modern era. Shortly after a mysterious meteorite struck down and captured the attention of the locals for being immovable, government officials converged on the small town to investigate. Locals were kept in the dark as to the origins and the nature of the mysterious object. However, it can be no coincidence that after the government intervened, eyewitness accounts claim that a twelve- to fifteen-foot large metallic suit of armor smashed through cars and breathed “fire” from its face, causing a nearby gas station and several buildings to explode. *Newsfront* reached out to known armored suit purveyor Tony Stark and Stark Industries, but received no comment.



The damage this unknown entity inflicted upon Puente Antiguo is extreme. Rebuilding the small town will take quite some time. “I’ve already been in touch with my insurance company,” says local business owner Isabel Alvarez, who operates a small restaurant destroyed in the incident. “But you try explaining to those suits that your diner was blown up by a space alien from a monster movie, and see if they take you seriously. I have no idea if they’ll cover any of the expenses of rebuilding, let alone what it will do to my deductible moving forward.”

The local sheriff’s office made only a brief statement, saying the occurrence was “out of their jurisdiction.” Government officials continue to have no comment on the situation or the cause of the disturbance.



S.H.I.E.L.D. FIELD REPORT

AGENT ON SCENE: Coulson, Phil



3359493798479374

ASGARDIAN ANOMALY “DESTROYER”: PUENTE ANTIGUO, NEW MEXICO

A supplemental update on the ongoing situation in New Mexico: During the extreme devastation of the town, Thor placed himself in harm's way and attempted to reason with the Destroyer. We speculate the large being was a conduit for another entity. When its facial plates opened to fire that remarkable energy beam, the suit was visibly empty.

As many agents will corroborate, Thor lay lifeless on the ground during the battle. There was an earthquake. The hammer, which we now know to be Mjolnir, dislodged from its resting place and sailed through the air and into Thor's hand. Following that, a strike of lightning restored Thor's powers. He was then able to dispatch the Destroyer with ease.

Barton and a small team of agents have recovered the Destroyer from the crater and are taking it to our nearby Alamogordo base for study. If otherworldly goliaths like this come crawling back to Earth, we'll want to fight fire with fire. It might be possible to convert this thing for S.H.I.E.L.D. use should the need arise.





S.H.I.E.L.D.
ARMORY

RESEARCH AND DEVELOPMENT PROGRESS REPORT



2309748497585703

ASGARDIAN DESTROYER — CONVERTED PROTOTYPE WEAPON

Per Agent Coulson's orders, the Asgardian artifact has been dissected and studied. Finding the frequency at which to activate and charge the main energy element proved complex, but we were able to simplify the process for the purposes of the weapon.

The element can be charged by depressing a button on the left side of the weapon. It takes a few seconds for the weapon to reach max capacity. The weapon will continue to hold a charge until released via a standard-issue trigger mechanism. The weapon is capable of firing a single short burst of the Destroyer's beam before requiring a recharge. To make every shot count, we have added a laser-guided scope and shoulder stock to assist with the nasty recoil.

Unfortunately, we have not been able to reproduce the sustained beam the machine demonstrated in New Mexico but will continue to hone the weapon. Per Coulson's order, the remainder of the Destroyer armor has been placed into a storage facility for use at a later date.





S.H.I.E.L.D.
ARMORY
SPECIAL ORDER REQUISITION



SUBMITTER:
COULSON, PHILLIP J.

An addendum to my submitted field report regarding the Asgardian anomaly encountered in Puente Antiguo. As mentioned, the weaponization of the Destroyer materials acquired by S.H.I.E.L.D. should be explored immediately. R&D should prioritize this task as Category A.

I recognize that trudging around with this heavy hunk of space metal isn't exactly feasible. But would it be possible to transplant the beam-emitter technology into some type of handheld weapon? Even something powered by a tank worn on a backpack or sling like a flamethrower? Think of the Ripley-like spread a firearm such as that could create. From purely a defense point of view, of course. If the Bifrost opens up and we get Asgardian tourists again, we'll want to fight fire with fire. This may be our chance.





S.H.I.E.L.D.
ARMORY



ARMS ASSIGNMENT INVENTORY TO ROMANOFF, NATASHA

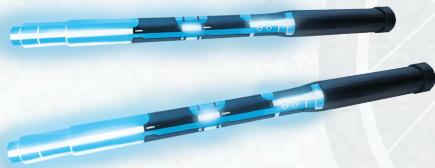
The following armaments have been assigned to and appropriated for Agent Romanoff, Natasha:



(2x) Glock 26s Semi-Automatic Pistols, with accompanying holsters and 10-round magazines



(2x) **Short-Length Batons (original):** Short fighting truncheons similar to police-issue nightstick. Nonelectrified. Simple and effective. Perfect for engagement with nonenhanced or noncybernetic organisms.



(2x) **Short-Length Batons (enhanced electroshock variant):** Similar to the original batons but upgraded for engagements with nonhuman or enhanced beings. These charged short fighting batons deploy an electrostatic shock upon impact to one of six hit points on the sticks. The batons are capable of delivering up to 300,000 volts at 4.5 milliamps of current.



(2x) **Black Widow "Bite" Gauntlets:** Again utilizing electroshock technology, these wrist-worn gauntlets allow electroshock to be activated at close range during hand-to-hand combat. Alternatively, the "bites" can be projectiles fired at a potential attacker from a distance. These gauntlets can also be retrofitted with communications systems for secure radio transmissions on closed, encrypted frequencies. Additionally, sting hit points have been incorporated into the Kevlar carbon-poly design on Romanoff's enhanced suit.

Additional Accessories
Appropriated
(Mission Dependent)

- Throwable Incapacitation "Taser" Disks
- Flash Smoke Grenades
- Pepper Spray
- Zip Cord Belt Attachment

SHURI-KIMOYO DICTATION

AUDIO-VIDEO FILE ID#: 753-31_PS_RHINO_LN.wav

FILED UNDER: ADVANCED TECHNOLOGICAL R&D>RHINO CHARGE>WIDOW_BITES

TRANSCRIPTION OF AUDIO:

Brother has mentioned on many occasions how he felt foolish that the Black Widow's projectile bites were able to keep him from pursuing Rogers at the Berlin airport. The new nanotechnology and kinetic disbursement in his suit should prevent a repeat issue.



WAKANDAN MEDICAL EVALUATION

EFFECTS OF "BLACK WIDOW" STUN WEAPONRY

Your highness, we have evaluated the technology encountered in Berlin which was employed by the Black Widow. Our findings conclude effects and recovery time are quite similar if not identical to a standard issue law enforcement stun gun. Variations in the weapon's impact and effectiveness are completely reliant upon the operator's settings. We estimate that Romanoff's devices are capable of emitting at maximum 250,000 to 300,000 volts at 4 to 5 milliamps, and at minimum 40,000 to 50,000 volts on a barely measurable amperage.

Based upon King T'Challa's experience, the minimum settings were engaged. With delivery of a small amperage current, the effects should only be temporary. With the added protection of his armor, he was spared some of the more uncomfortable side-effects such as weakened or sore muscles, cramping, external first-degree epidermal burns, temporary nerve damage, and temporary lapses in consciousness. As with any device that incapacitates the victim, there is also risk of blunt force trauma injuries from a fall. Recovery time from this attack is minimal.

Should the highest setting of the devices be engaged and a prolonged exposure to high amperage current is experienced, side-effects could include permanent nerve damage, third-degree subdermal burns, loss of vision, even death. Needless to say, recovery time from an attack of this magnitude could take weeks if not be enduring and indefinite injuries.



S.H.I.E.L.D.
ARMORY



ARMS ASSIGNMENT INVENTORY TO BARTON, CLINT

The following armaments have been assigned to and appropriated for Agent Barton, Clint:

BOW (RECURVE) (MULTIPLE MODELS):

Lightweight and compact for battle scenarios where movement is necessary. Recurve refers to its distinctively curved upper and lower limb design. Folding points of the bow can be condensed into a single solid staff for hand-to-hand combat should arrows not be appropriate or stock is depleted. Barton's current armory contains ten Recurve Bows from various manufacturers.

BOW (COMPOUND) (MULTIPLE MODELS):

For stationary archery where precision is key and less physical exertion is necessary, the Compound Bow has a mechanical wheel and cable system, along with a complex stabilization and balancing calibration system to assist in the firing of arrows for greater range and precision. Barton currently possesses multiple variations of this model.

QUIVER (SPECIAL-DESIGN) (MULTIPLE):

A unique arrow shaft and arrowhead dispensary designed in collaboration with Barton to improve the speed and delivery of stock for multipurpose scenarios. Most recently, a mechanized distribution unit was added. Controlled by a palm grip, or remotely using controls implemented on the Recurve Bows, the arrowhead chamber rotates to marry a selected head with a shaft and fletching.





ARMS ASSIGNMENT INVENTORY TO BARTON, CLINT



ARROWHEADS (MULTIPLE MODELS):

INCENDIARY AND EXPLOSIVE ARROWHEADS. Much like their name indicates, these tips can be used for targeted, contained explosions as well as anti-aircraft flak.

TIMED GRENADE ARROWHEADS.

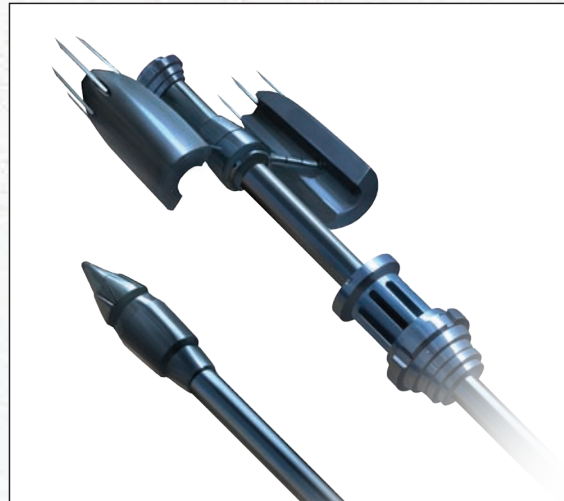
These arrowheads contain a timed sonic burst that can knock multiple adversaries off their feet.

INCAPACITATING STUN ARROWHEADS. When fired at or placed onto an opponent's forehead, the tip temporarily paralyzes them using an electroshock pulse. Similar arrowheads have been developed that can be placed around a perimeter to create a shielding device or trap.

NOTE: Agent Barton has recently commissioned a variety of specific-use arrows that are too numerous to list.

RED-TINTED ARCHERY GLASSES:

Anti-reflective, poly-carbonate, single-vision lenses to limit the distortion in peripheral vision.



STARK INDUSTRIES



JERICHO MISSILES

Is it better to be feared? Or respected? Here at Stark Industries we ask for both. This is the crown jewel of the Freedom Line. A ballistic missile system incorporated into our proprietary repulsor technology. This rocket-propelled surface-to-air missile fires a single shot. Once the housing detaches midair, the single missile transforms into a swarm of twelve to sixteen smaller charges. Each smaller charge can be designated for a separate target or to detonate in preset attack patterns. The resulting explosion creates a shockwave several miles in diameter.

TO ORDER **CALL 1-800-555-1234** OR FILL OUT ORDER FORM ON BACK COVER

SONIC CANNONS

THESE LONG-RANGE ACOUSTIC DEVICES WERE ORIGINALLY REQUISITIONED BY GEN. ROSS OF THE US ARMY FOR A SPECIFIC APPLICATION, BUT WE ARE MAKING THEM WIDELY AVAILABLE FOR THE RIGHT PRICE.

This puppy can come in handy for crowd control or for acoustic attack to bring down enemy aircraft without firing a shot! Forget the LRAD 500; it's a boom box compared to the sonic firepower of our Stark patented technology. The Stark Sonic Cannon emits sonic waves at 2.5 kHz without any decibel degradation within a hundred-foot radius. And off of a standard power source, too. What does that mean? It means that the sound waves are absolutely crippling even if you're a mean *Tyrannosaurus rex*. They're a little larger than the standard police-issue LRAD, but air, land, or sea, you've got to have at least one of these.

ITEM # 2380Y0Y51

STAINLESS STEEL BOX: ITEM # 2400Y0Y51

ADD WIRELESS REMOTE: ITEM # 2420Y0Y51

CARTRIDGES: ITEM # 2440Y0Y51



ITEM # 2380Y0Y51

ENHANCED RADIATION TRACKERS

ITEM #: 3220X0Y41



Need a tracker built into your rifle scope? Stark Industries has you covered. Need long-range scanners to pick up pesky lost nukes? First, stop losing those things. Second, Stark Industries has you covered.

10 MILE RANGE: ITEM # 3220X0Y41

50 MILE RANGE: ITEM # 3240X0Y41

RIFLE MOUNT: ITEM # 3260X0Y41

AND MORE: HERE AT STARK INDUSTRIES, WE'RE ALWAYS WORKING TO HONE THE LATEST IN TECHNOLOGY TO KEEP YOU SAFE BOTH ON AND OFF THE BATTLEFIELD. WE TAKE CUSTOM ORDERS. NO JOB IS TOO BIG, NO ENEMY IS TOO STRONG FOR THE POWER OF STARK.

FILES PERTAINING TO:
TESSERACT ENERGY POWERED RIFLES



UNITED STATES OF AMERICA

STRATEGIC HOMELAND INTERVENTION ENFORCEMENT LOGISTICS DIVISION

ARCHIVE

CONTENTS:

ARNIM ZOLA NOTEBOOK ENTRY

The Tesseract is extraordinary. Recalibrating my energy-transferral cyclotron required precision and a great deal of effort but in the end proved worth every sleepless moment. I estimate we will be able to draw 60% to 70% of the raw energy emitted from the Tesseract and contain the power within my storage arrays. I have designed several lead-lined arrays, ranging from small ones to power a pistol or rifle to large ones from which we will be able to power the Valkyrie itself. This will change the tide of the war.



Memorandum

To: Colonel Chester Philips

I don't need to tell you this, but we must immediately create an initiative to study the alternative energy resources and capabilities of otherworldly objects like the Tesseract. The applications are limitless: transportation, city power grid, infrastructure, weaponization, etc. Zola and Schmidt had the right idea. They were just a little megalomaniacal in their execution.

We'd need money. We'd need security. We will need to pull resources from multiple branches of government, perhaps even arms of the military, to begin this project. It could potentially be a thirty- to forty-year effort. I can lend the start-up costs, but it's going to require sustained capital and an isolated, self-sufficient facility to support ongoing work. I hear the Air Force, Dryden, and the National Advisory Committee for Aeronautics are gearing up for a big shift. What if we're able to sweep our little project under the rug as that ramps up? If we give it an innocuous-enough name, keep the mission perimeters generalized enough, and silo out access, it might just be the perfect vessel to contain the project.

Do you know Dryden? Think you could make the introduction?

Howard Stark

REVERSE ENGINEERING SERVICES HYDRA WEAPONRY

The Reverse Engineering Services, or R.E.S., has concluded its evaluation of the technology apprehended by the United States Army and provided to the S.S.R. from the Hydra manufacturing plant raids. R.E.S. has yielded the following assessment.



Tesseract Cannon

A recoilless energy weapon mounted on a tripod base with a single barrel. The cannon exhibits early robotics functionality employing a mechanized arm for the device to be adjusted and retargeted as needed. Targets can be locked and entered into the machine using a program code. One burst vaporizes a single entity.

Tesseract Rifle

Handheld rifles attached bandolier style to power-generating backpacks. The weapon fires short bursts with a recharge rate of fifteen to twenty seconds. One burst has the ability to destroy the walls of a building or vaporize human tissue. It is possible to disconnect the rifle from the powering pack for a couple shots.



Tesseract Chain Gun

A double-barreled variant of the rifle carried by Hydra heavy troopers. The weapon has a very slow refresh rate, roughly a single shot every thirty to thirty-five seconds, but has similar effects to other Tesseract weapons.

Handheld Pistol

A modification of Schmidt's favorite pistol, the Luger, this pistol is loaded via small Tesseract-powered clips.





03 | VEHICLES



WAKANDA ROYAL ARCHIVES

ADVANCED SCIENCES AND TECHNOLOGIES RESEARCH REQUEST FORM

DIRECTIVE:

Gather all intelligence reports, documentation, schematics, blueprints, or conceptual orthographic drawings on modes of transportation via land, sea, or air.

REQUEST CONTACT:

Shuri, Head of Science and Technological Development

INITIATIVE, CLEARANCE, AND CLASSIFICATION CODE:

RHINO CHARGE [ENCRYPTED THUMBPRINT PROVIDED]



DATE NEEDED:

ASAP

ARCHIVIST NOTES:

As with the archival pull you requested for weaponry, your directive could easily have been a vast pull resulting in an entire warehouse worth of material. Knowing your love for cars, we would not be surprised if you intended to take a deep dive into the consumer-based automobile and aircraft models over the course of centuries. However, given the most recent search parameters, we narrowed the search to revolutionary advancements in transport, government applications, initiatives, and conveyance utilized in combat.

Materials pulled from the following:

- Wakanda Historic Archives
- Public records and media outlets
- War Dog Files: Hydra
- War Dog Files: Stark Industries
- War Dog Files: SSR/S.H.I.E.L.D. (highest clearance)
- War Dog Files: CIA
- War Dog Files: Pym Technologies

We will continue to add materials in an ongoing effort to keep this collection up to date.

*There are so many possibilities
for advancement in modes of
transportation, especially given the
more recent revelations in travel
between different planets and realms.*

DOCUMENT

32229-REQ



UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION FOR: Gravitic Reversion Emitters
SUBMITTED BY: Stark Industries o/b/o Howard Stark

DESCRIPTION: Wheel-well repulsor replacement intended to control and inverse the natural effects of gravity for automobile repulsion and flight.

TITLE OF INVENTION: Gravitic Reversion Emitters (and all derivative terminology)

SUMMARY OF INVENTION: The technology contained within the attached specifications creates the total reversal or nullification of gravity, otherwise known as antigravity, to lift heavy objects off the ground and propel them on a multilateral plane. By placing four C-shaped emitters on each of the four corners of a car, in this instance within the wheel-wells, we create a perimeter from which the automobile can be lifted. The Gravitic Reversion Emitters discharge an electromagnetic bubble around them that shields the surrounding sphere with what we call a "gravity shield," that is to say a small fringe of space in which the effects of gravity are invalidated. In doing so, no matter how much the object may weigh, the results of killing the gravity underneath it create a repulsion effect.

FIG. 1. SIDE VIEW

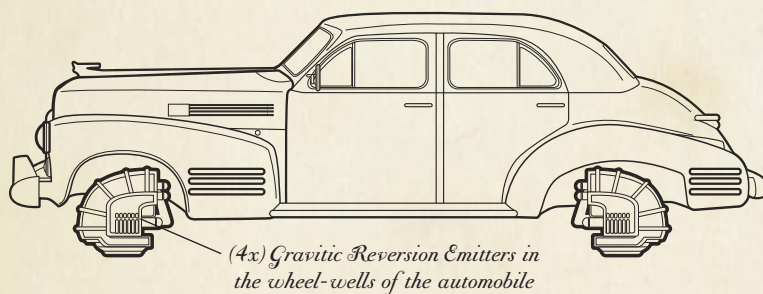
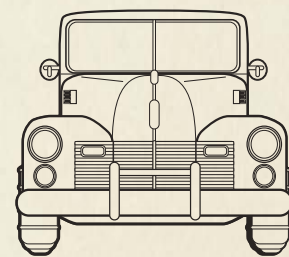


FIG. 2. FRONT VIEW



Gravity shield surrounds automobile within a bubble, lifting it from the ground

FIG. 3. TOP VIEW

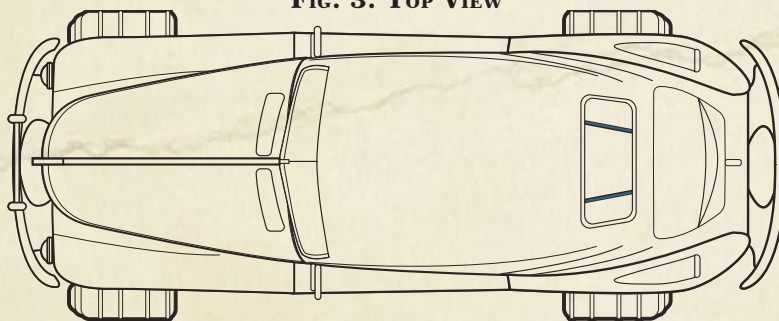
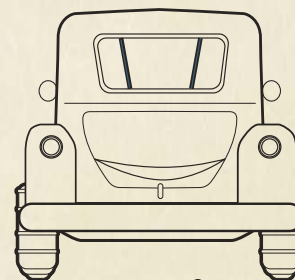


FIG. 4. REAR VIEW



Iron-wrapped conductive current wire coil

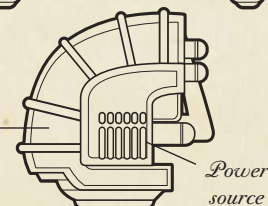


FIG. 5. DETAILED VIEW





AD/PUBLICITY DRAFT
WORLD EXPOSITION OF TOMORROW FLYER

Mr. Stark: For your approval.

—Goodman



HOVERCAR PROTOTYPES

Vol. XCVIII

TUESDAY, JULY 30

THREE CENTS

FLYING CAR CRASHES BACK TO REALITY



By P. HORNBUCKLE

NEW YORK, NY — Howard Stark's latest promise to send our cars to the skies tumbled back down to Earth during a demonstration at Stark Industries. With hype and fanfare that only Stark is capable of, he dazzled an audience of VIPs, government officials,

and members of the press yesterday as he listed an automobile off the ground without the use of an engine or propeller. However, the success was fleeting as a malfunction sent both the car and its driver on a crash course with a nearby building.

This wasn't the first failure of his latest contraption. At the

World Exposition of Tomorrow, Stark unveiled his "Gravitic Reversion Technology." With it, he touted the same claims that he could reverse the laws of physics and lift an automobile into the air. His demonstration was successful for a mere second, before it came crashing to the ground.

113



OPERATIVE FIELD REPORT

SUBMITTED VIA ENCRYPTED CHANNELS

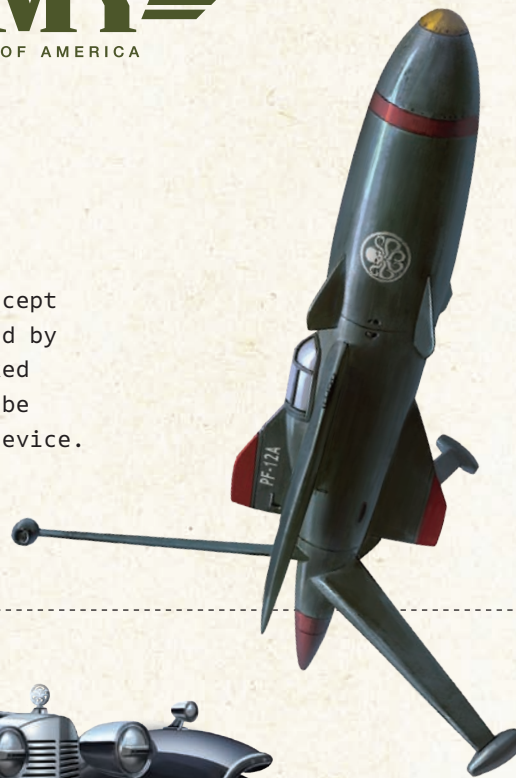
My King, the following intercepted message was sent by a US Army reconnaissance scout regarding the vehicular capabilities of Hydra's Krausberg mountain facility. The 107th Division looks to be moving on the facility. I will continue to monitor the movement of both parties.

ARMY
UNITED STATES OF AMERICA

TOP SECRET

SINGLE PASSENGER TRIEBFLÜGELJÄGER

A VTOL (vertical takeoff and landing) concept vehicle previously observed being utilized by the Luftwaffe. This vehicle has been docked on the roof of the facility and looks to be utilized as a personal travel or escape device.



RED SKULL'S ROADSTER

An ornamental luxury vehicle with a striking silhouette and elongated hood adorned with a Hydra emblem. This three-seater vehicle is powered by a 16-cylinder engine. However, the addition of a nitrous thruster—activated by a button labeled GEFAHR NICHT DRUCKEN (Danger: Do Not Push) on the console—allows the vehicle to reach top speeds.

1 of 2



OPERATIVE FIELD REPORT

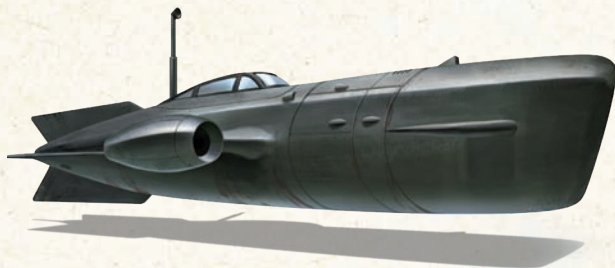
SUBMITTED VIA ENCRYPTED CHANNELS

2 of 2



MOTORCYCLES

A sleek two-wheeler vehicle design with an aerodynamic engine compartment that is powered by a hybrid of gasoline and Tesseract energy. Armed with cannons attached to the front axle that fire short bursts of Tesseract energy and grenade holders located in the saddle area.



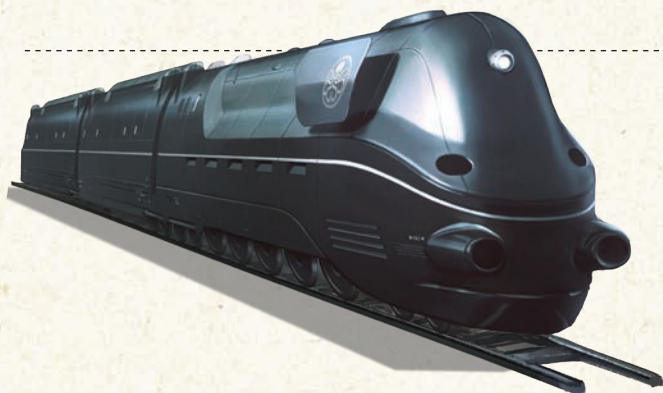
MINISUB

A single-seat manned submersible with twin engines. An espionage vehicle utilized by Hydra spies and assassins. Accessed via remote control disguised as a cigarette lighter.



TANKS

Armored vehicles retrofitted with Tesseract cannons. There are two versions of this vehicle: First, a larger, more traditional tank capable of holding multiple passengers and a manned gunner situated in a top turret. Second, a smaller armored vehicle built for two passengers with a remotely triggered cannon.



HYDRA BULLET TRAIN

A streamlined train capable of speeds far superior to anything we've seen powered by steam or coal. A single-circular Tesseract array located in the pilot's compartment is able to power the entirety of the train.



S.H.I.E.L.D.
ADVANCED R&D DEPARTMENT
PROGRESS REPORT



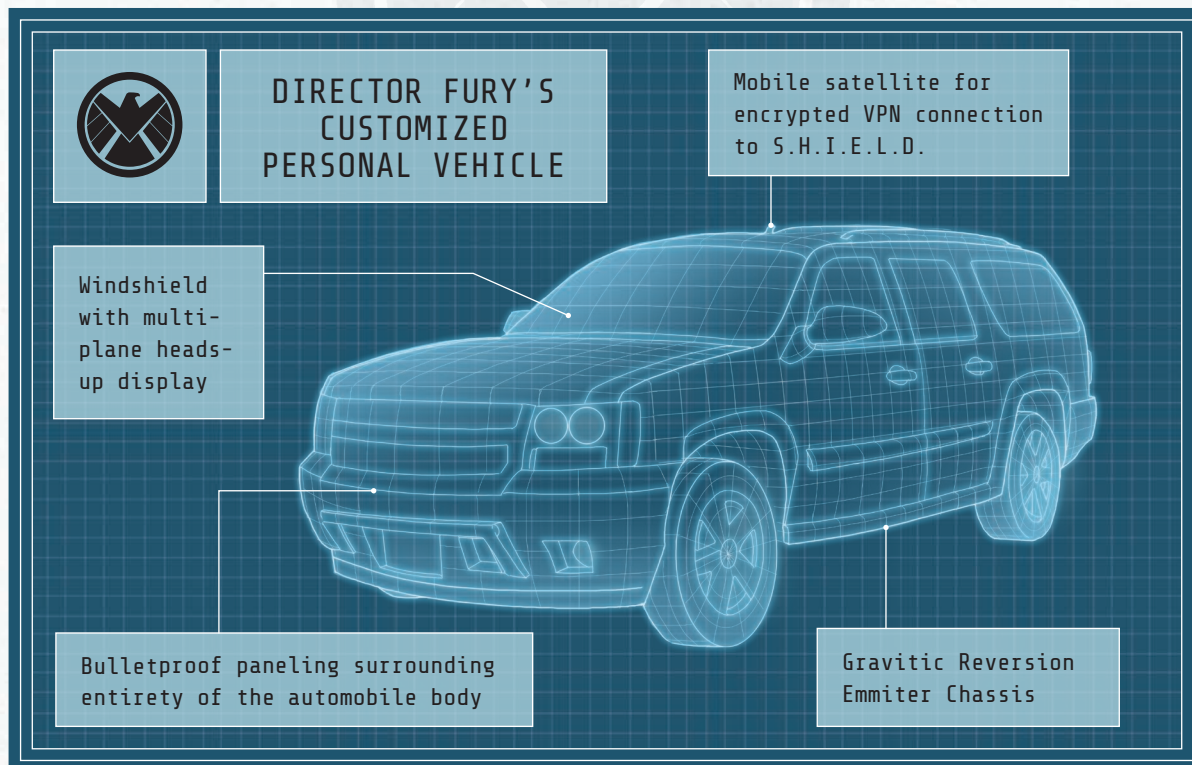
PERSONAL TRANSPORTATION VEHICLE ACQUISITION

Director Fury,

Per your request, we have retrofitted a standard-issue vehicle to the specifications you detailed. The vehicle is ready for pickup at your convenience, or we can have it delivered to you at the Triskelion.

A few notations about the implemented systems:

1. As is standard for all Level 10 operatives, the vehicle has been retrofitted with bulletproof paneling along with ballistic- and bullet-resistant glass. However, per your request, we have upgraded the usual polymers for bullet absorption with a transparent carbon-fiber.
2. The chassis has been altered to allow flight capabilities using the Gravitic Reversion Technology acquired from Stark Industries. Air and ground autopilot and drive assist technology are also available but can be disabled via voice command as needed.
3. A fully integrated heads-up display (HUD) is built into the windshield and allows access to statistical and structural information, secured communication lines, and the medical assist protocol for the driver and all passengers.
4. An automatic weapon and grenade launcher are housed in the center console as specified.





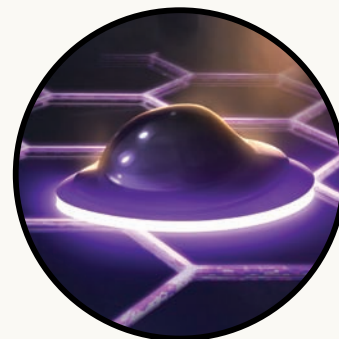
WAKANDAN DESIGN GROUP

REMOTE VEHICLE TRANSMITTER AND RECEIVER SPECIFICATIONS

PURPOSE: Remote access, unmanned control, and disabling of vehicles
The following equipment has been prototyped and is ready for assessment.

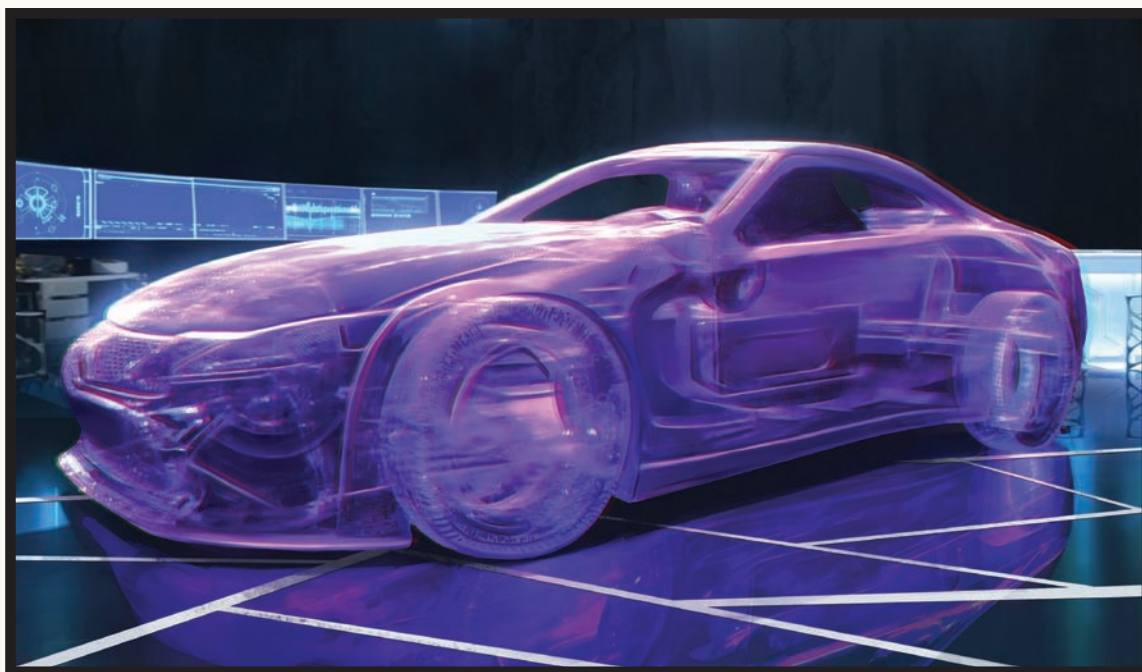
TRANSMITTER DEVICE: BASIC FUNCTION

When attached to any vehicle made in the 1970s or newer, this remote sensor will quickly analyze the vehicle and commandeer access to all functional and operational systems. The device is equipped to transmit via Wakandan encrypted satellites for relay back to the palace. This information can then be utilized to remotely pilot the vehicle at either a sand table or through the Operator Interface.



RECEIVER AND OPERATOR INTERFACE

The data relayed from the transmitter device is then analyzed and dispatched to multiple laser projectors. The result is a "hard light" image that is tangible and responsive to the touch. This image re-creates the environment (driver's seat, cockpit, helm controls, etc.) and allows interactive interfacing with any systems connected to the vehicle's central processor.



Cars, planes, you name it—as long as you attach the transmitter, you're able to control it remotely. Think of the applications. Better than automated drones? As long as within satellite range, it can be controlled from my lab.



WAKANDA DEPARTMENT OF DEFENSE

MEMORANDUM TO SHURI

Shuri,

In regards to the recent operation in Seoul, we must once again remind you of the necessity for discretion. As a constant reminder, we must be vigilant to limit exposure of Wakanda's advanced technology to the greater public.

There are far too many eyewitnesses with tangible video evidence. In the social media age, we have risked exposure and are vulnerable. Nearly ten million people in Seoul. Nine out of ten of them have smartphones with cameras, and 96% of them are connected to the internet and social media. You chose one of the most populous cities, with the greatest amount of watching camera eyes connected to the cloud, to conduct your grand display of some of our most advanced technology. This was most unwise. The world is watching.

Please reference the following civilian-filmed videos, which we are currently working to have removed from their respective streaming video servers (links below):

- Driverless car in high speed chase
- Impossible two-wheel turn
- Ghost driver
- Intersection wreck caused by runaway vehicle
- Human panther car-surfing through Seoul
- Gwangandaegyo Bridge high speed gun fight
- Car flips ten times on Diamond Bridge
- Guy riding on top of car causes SUV to flip into farmer's market

Pre-planned? Strategized? This is the red tape that leads to inaction and becoming sedentary. If I had to ask for permission at every corner, we would accomplish nothing. Procedure, I get. Supervision and oversight as checks and balances, sure. But when we need to spring into action, the right tool for the right job is necessary. We needed to get Klaue.

He and his caravan took off and we were in pursuit. Brother needed my help. End of story. Besides, it's not that difficult to remove these amateur videos from streaming services. A child could do this.



S.H.I.E.L.D.
SEARCH AND RECOVERY REPORT

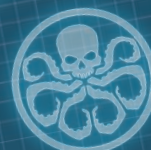


VALKYRIE BOMBER

1. Acting upon a tip from the RFS Schnapp, S.H.I.E.L.D. recovered a WWII-era V-shaped bomber buried in the ice in the Arctic Circle. We have verified that this craft is in fact Johann Schmidt's Valkyrie Bomber, which was grounded by Captain Steve Rogers almost seventy years ago.
2. According to the accounts of Howard Stark, the vehicle was powered by several disc arrays, daisy-chaining sixteen to eighteen Tesseract energy storage devices per array. The twin-jet engine craft was built with openings for eight additional propellers at the rear of the craft, spanning the 165-meter wingspan. We also found a rudimentary rear-facing, closed-circuit camera, presumably to assist in taxiing and storage of the craft or for flight personnel to view an attack from behind.
3. Each of the eight propeller engines were attached to smaller one-man pod fighters armed with atomic explosives. The temperatures at which these explosives were buried preserved the bomb's aluminum-magnesium housing from decay and contributed to the stability of the main uranium and plutonium.
4. Last, there is a large command or cockpit area in the forward center of the craft. This is the area in which the anomaly was located. The anomaly has been placed on a transport and is en route to New York.



**HYDRA VALKYRIE ADVANCED
BOMBER PROTOTYPE**





S.H.I.E.L.D.
DIRECTOR COMMUNICATION



6789409890345998

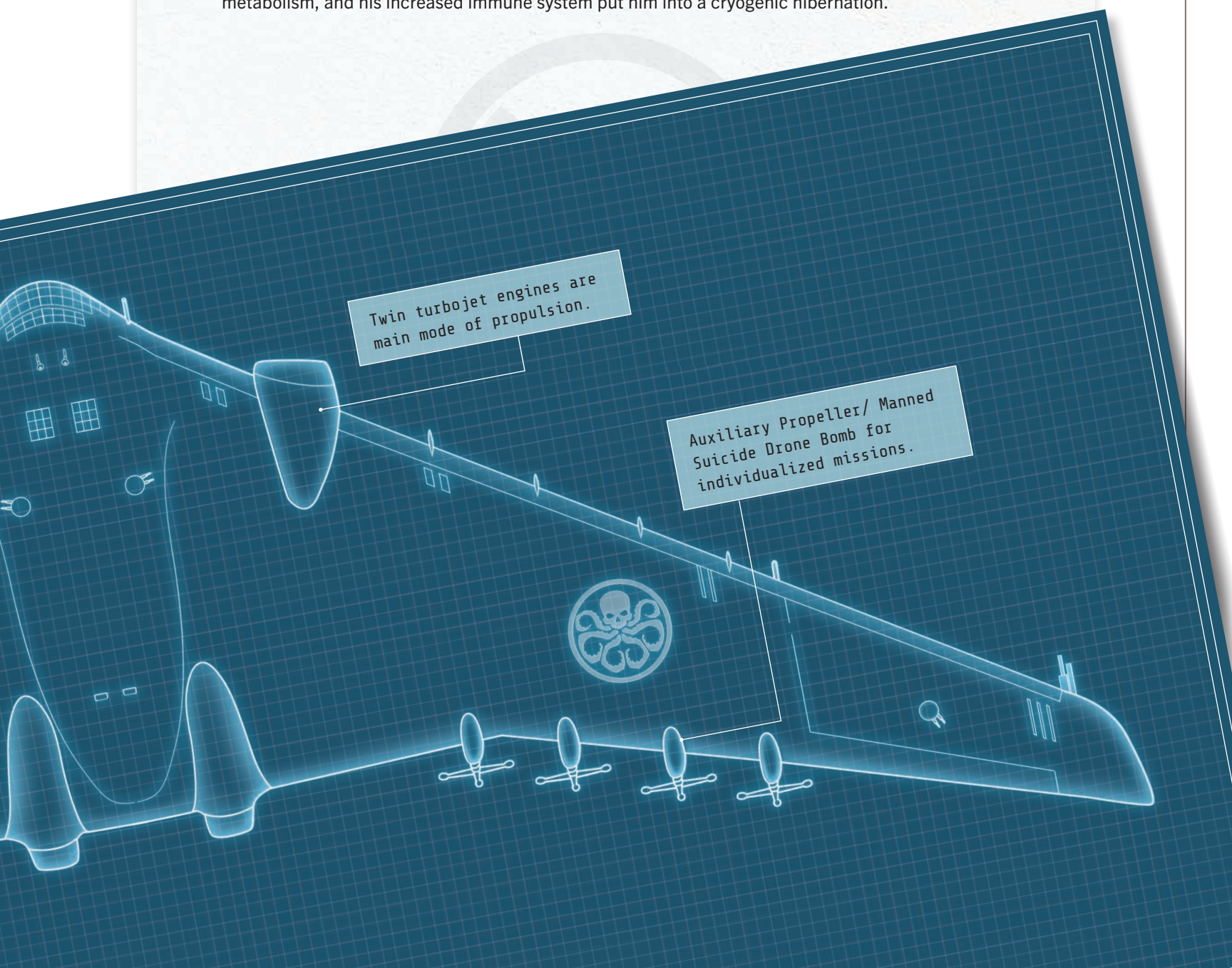
ENCRYPTED FILE

T: DIR. FURY
F: COULSON, PHIL

Director Fury,

I wanted to inform you that the anomaly has arrived in New York City. I personally requested transport to be on site as he was unloaded. Happy to report that he's healthy; vitals should stabilize shortly after the thawing process. He doesn't look to have aged a day since 1945. Medical attributes this to his blood having thickened during the flash-freezing process but not having completely frozen through. Essentially, they believe that Erskine's serum, his increased metabolism, and his increased immune system put him into a cryogenic hibernation.

THE VALKYRIE BOMBER





S.H.I.E.L.D.
ADVANCED R&D DEPARTMENT



772394992309709

Secretary Pierce,

It is with pride we present our final technical report on utilization of Advanced Retro-Reflective Cloaking Technology, otherwise known as optical camouflage, for the Helicarrier project. With this technology, combined with next-generation radar jamming, the flying fortresses would be virtually undetectable. We believe this is the approach we should pursue for Phase One.

The retro-reflective paneling allows the background, which ordinarily would be covered by the massive Helicarrier, to be filmed and simultaneously projected onto the paneling without any distortion or dimming. This presents the illusion of the Helicarrier being completely transparent while in flight.

Filming and projecting is a bit of an oversimplification. The process is more of an optical phase conjugation that reverses the light on the opposite side and bounces it back through the retro-reflective paneling. This prevents the disbursement or degradation of light and image on what is being seen by the naked eye. In layman's terms, this avoids the Helicarrier appearing to darken the sky. Or worse, from it distorting the cloud cover into a jumbled mess.

The process begins by utilizing thousands of pure, white light-sensitive, and high-definition cameras. The photoreceptors gather data and send it to S.H.I.E.L.D. supercomputers, which adjust the visual data before feeding it to the paneling. The process requires a massive amount of power consumption. This could present the only potential roadblock for this technology's use. How will the Helicarriers be powered, and what supplemental sources will this technology be able to draw upon? Is it possible for us to see the remainder of the schematics?

R&D explored alternative methods in which light would be absorbed by the paneling, but ultimately the retro-reflective technology is most effective and achievable at this time.

They have to cover the entire ship with paneling, and it doesn't even shield them from intrusion or ballistic attack?



S.H.I.E.L.D.
PROJECT INSIGHT



FORMAL PROPOSAL TO THE WORLD SECURITY COUNCIL

From: Director Fury | cc: Secretary Pierce

Members of the Council:

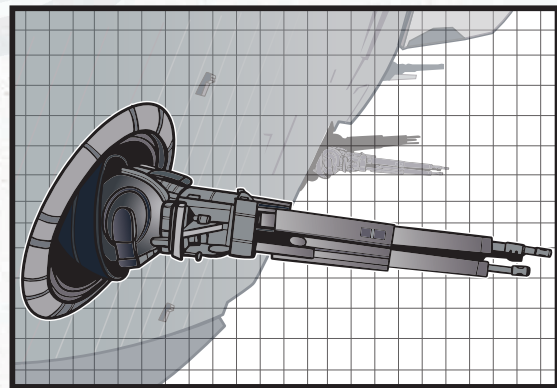
The Battle of New York showed us some pretty glaring gaps in our defensive capabilities and threat analysis. The natural evolution in security is to find a way to premeditatively determine where and when there will be threats to not just our country but to the world as a whole. Now is the time to take the quantum leap that is necessary to protect us when the time comes.

Project INSIGHT will do just that. Here is what this initiative entails:

THE CONVERSION AND CONSTRUCTION OF TRISKELION SUBTERRANEAN LEVELS. This will be the most secure facility for our project on the planet, deep below the Potomac River. Within this facility, it is our intent to build an armada of:

NEXT-GENERATION ADVANCED HELICARRIERS. Three massive, linked carriers with a single hive mind controlled by targeting satellites. These ultra-precise “thinking” satellites, in conjunction with state-of-the-art server blades at the central processing core of each Helicarrier, will track the DNA of known terrorists. We will be able to stop these threats before they take a single step toward mass destruction. Each Helicarrier will have the capacity to carry an armada of Quinjets and fighter planes. Tri-barrel cannons at the forward section of the craft provide close-range offensive capabilities, while long-range precision guns can eliminate a thousand hostiles a minute.

INTELLIGENT TARGETING. Without revolutionizing our threat analysis, the next-generation Helicarriers are just oversized guns. Central to Project INSIGHT is an automated target acquisition with AI awareness and prediction. This system will analyze bank records, shopping patterns, SAT scores, and all digital footprints to predictive behavioral patterns and mark potential threats before the person is even aware of their own plans. Should anyone step out of line, even Capt. Rogers himself, INSIGHT will be there to defend us.



*What happened to these satellites after the
Helicarriers crashed and burned? I wonder . . .*



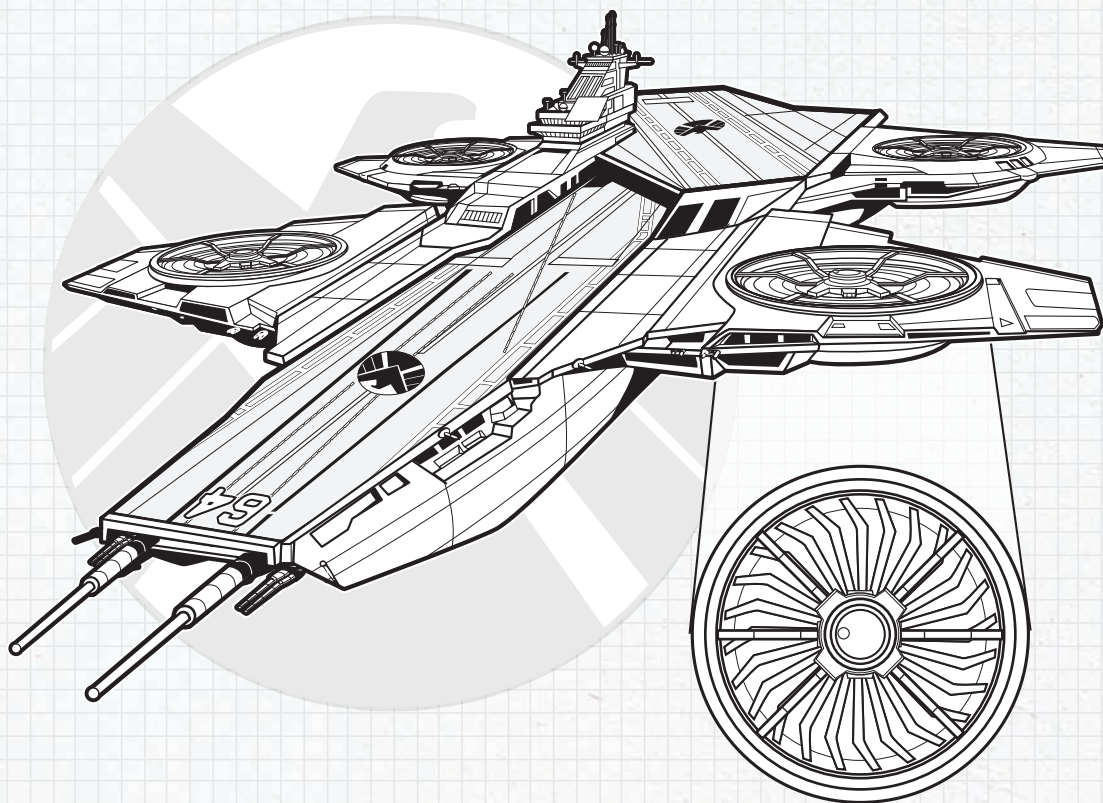
S.H.I.E.L.D. HELICARRIER FLEET ANALYSIS



3239988034111987

Mk. I: "Helicarrier 64"

- Aircraft carrier in the sky, seaworthy for cover
- Flight powered by four large turbine engines
- Altitude max: 30,000 feet
- Forward flight deck capable of aircraft takeoff and landing
- Main operations from command bridge at starboard-aft of vessel



STATUS

Damaged heavily in the Battle of New York, repaired and loaned to Fury for assistance in evacuating Sokovia.



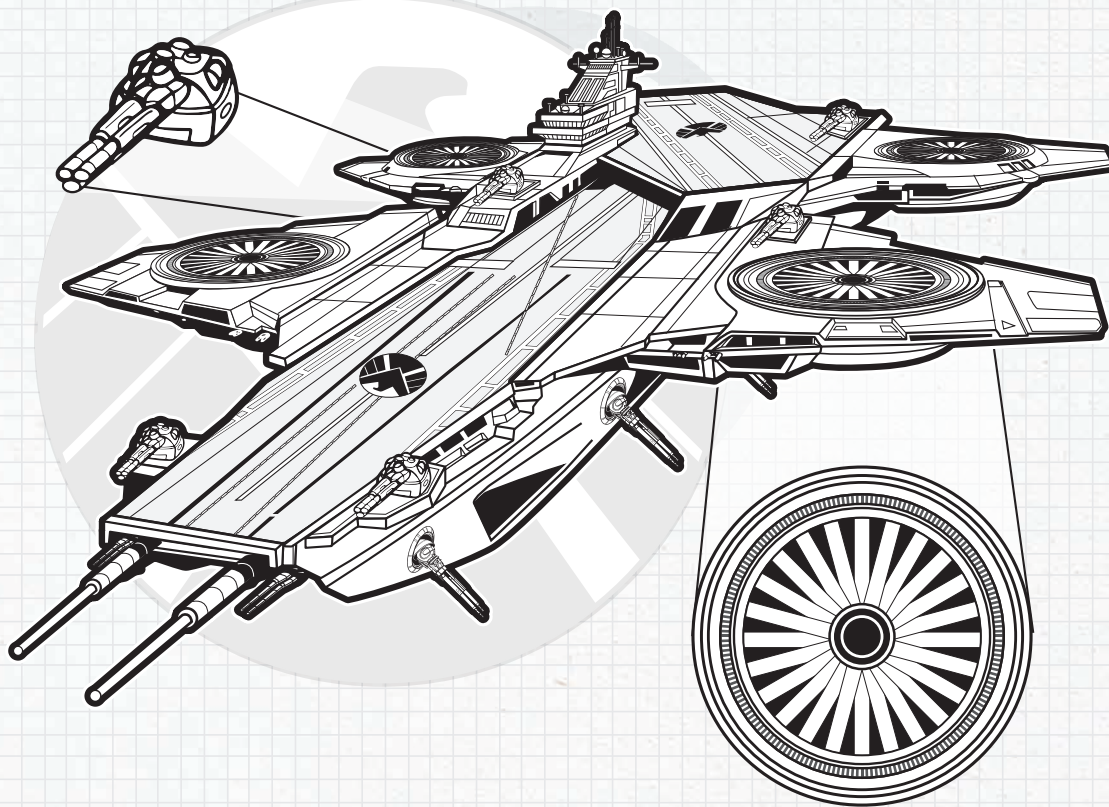
S.H.I.E.L.D. HELICARRIER FLEET ANALYSIS



3239988034111987

Mk. II: Advanced Project INSIGHT Helicarriers (IN-01, IN-02, IN-03)

- Advanced and automated battleship in the sky
- Flight powered by four Stark Industries RT engines
- Altitude max: 30,000 feet
- Forward flight deck capable of craft takeoff and landing
- Main operations from command bridge at starboard of vessel
- ALL OTHER FUNCTIONALITY CLASSIFIED LEVEL 10



STATUS

All destroyed.



S.H.I.E.L.D. QUADJET PROJECT PEGASUS



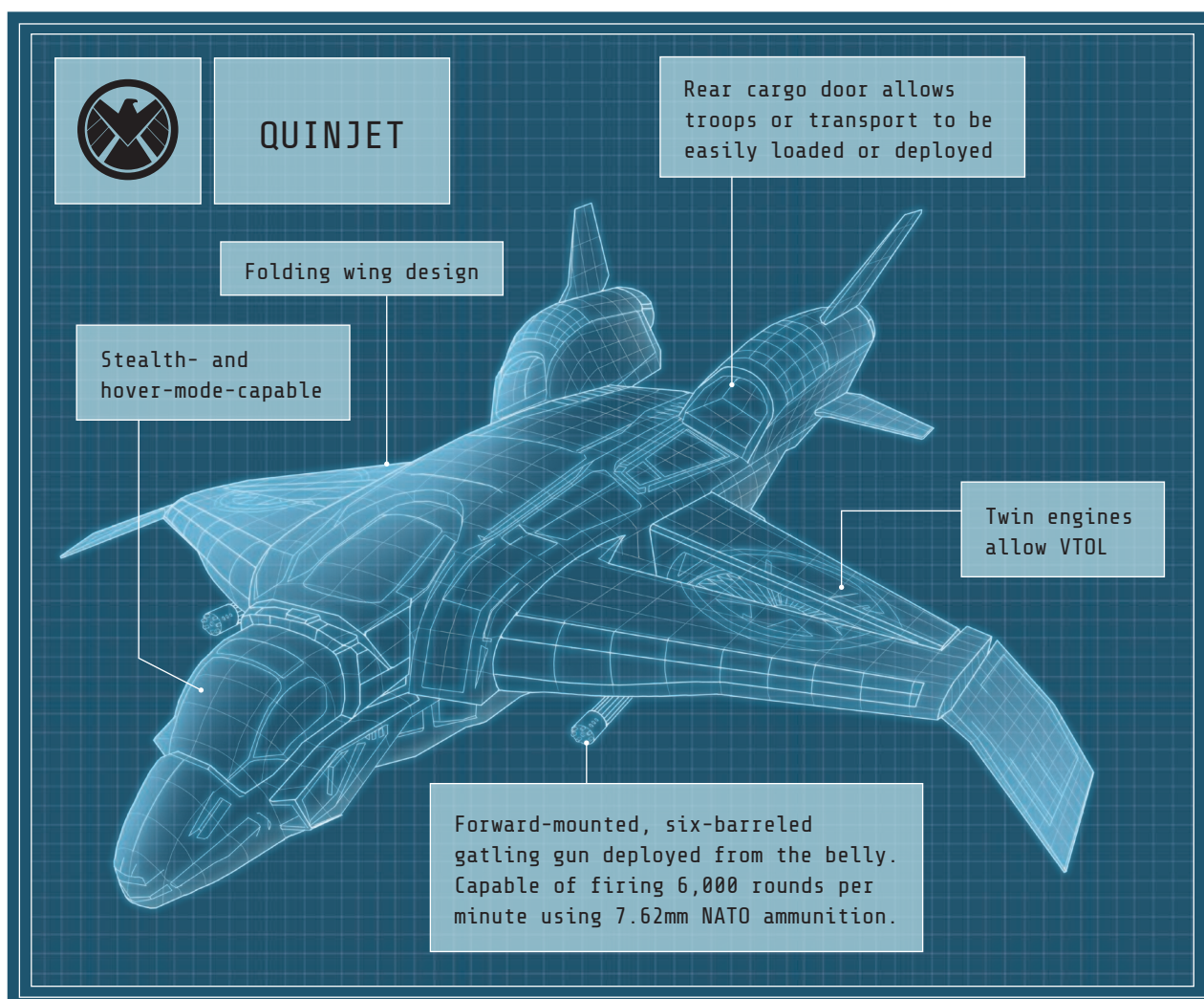
PROTOTYPE PROJECT PEGASUS ITERATIVE TEST 171

Folding wing design.

Twin engines allow Vertical Takeoff and Landing (VTOL).

Retrofitted with alien technology and utilized by Agent Nick Fury for atmospheric and space vehicular travel.

Currently in cold storage for historical purposes.





**CENTRAL INTELLIGENCE AGENCY
UNITED STATES OF AMERICA**

WASHINGTON D.C.

CLASSIFIED

DEBRIEFING NOTES

Ross, Everett

Wakanda is extremely advanced thanks to its reliance upon vibranium as a building material and a power source. The ground forces of the country are quite impressive, but it is their airborne units of which intelligence agencies should take special interest. Their aeronautical engineering is unmatched, especially considering it was all quite literally developed and built in an isolated bubble.

ROYAL TALON FIGHTER

This single-manned fighter craft is reserved for use only by the king of Wakanda, and the design makes that apparent. It's sleek, like a luxury sports car. The two propulsion engines are fueled by vibranium. VTOL is controlled by a maglev technology of which I'm unfamiliar, but it is utilized on many Wakandan vehicles including their cars, buses, and trains. It runs whisper quiet. Its silent operation combined with the radar-jamming outer paneling makes it a stealth ship. The advanced instrumentation allows the craft to operate on autopilot. The Royal Talon Fighter is optimized for high-altitude flight, with a flight ceiling around 65,000 feet.





CENTRAL INTELLIGENCE AGENCY
UNITED STATES OF AMERICA
WASHINGTON D.C.

CLASSIFIED

DEBRIEFING NOTES

Ross, Everett

Attached is a report on the fleet of "Dragon Flyer" vehicles employed by the air forces of Wakanda. I believe that these are merely one model of aircraft among many, which I may not have been exposed to while stationed at the location. Based on the advanced ground technologies observed, it is more than probable and highly likely that the Dragon Flyer is but the tip of the iceberg. I would recommend, once relations are formalized, a more in-depth sharing of technological specifications.

DRAGON FLYER

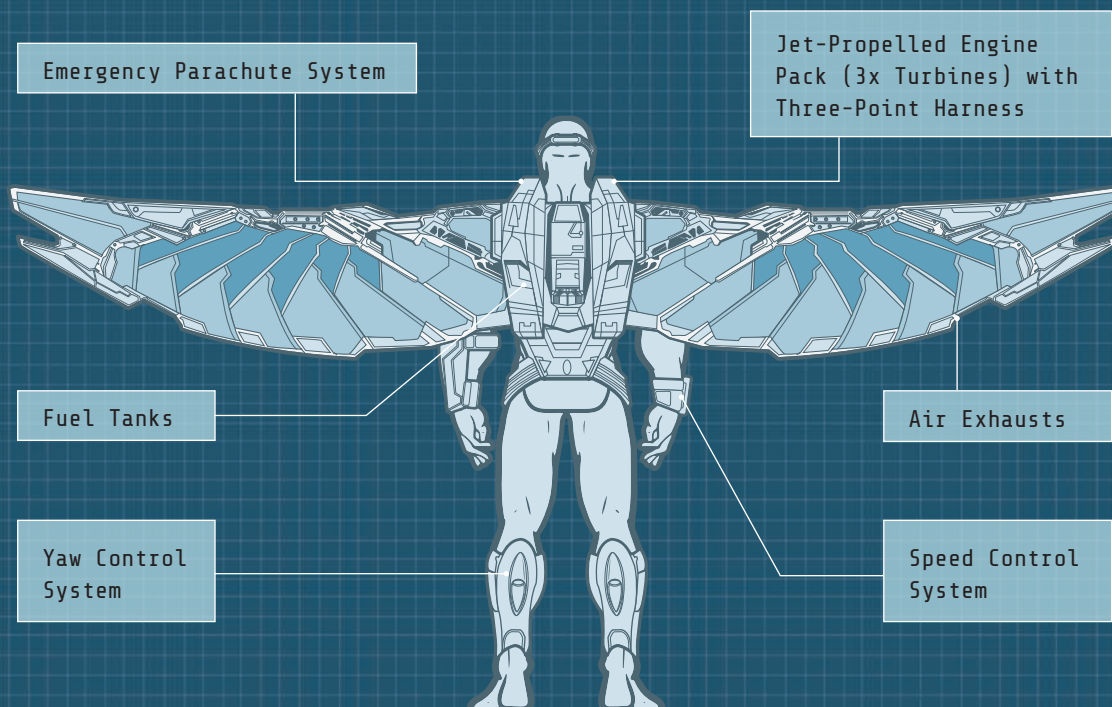
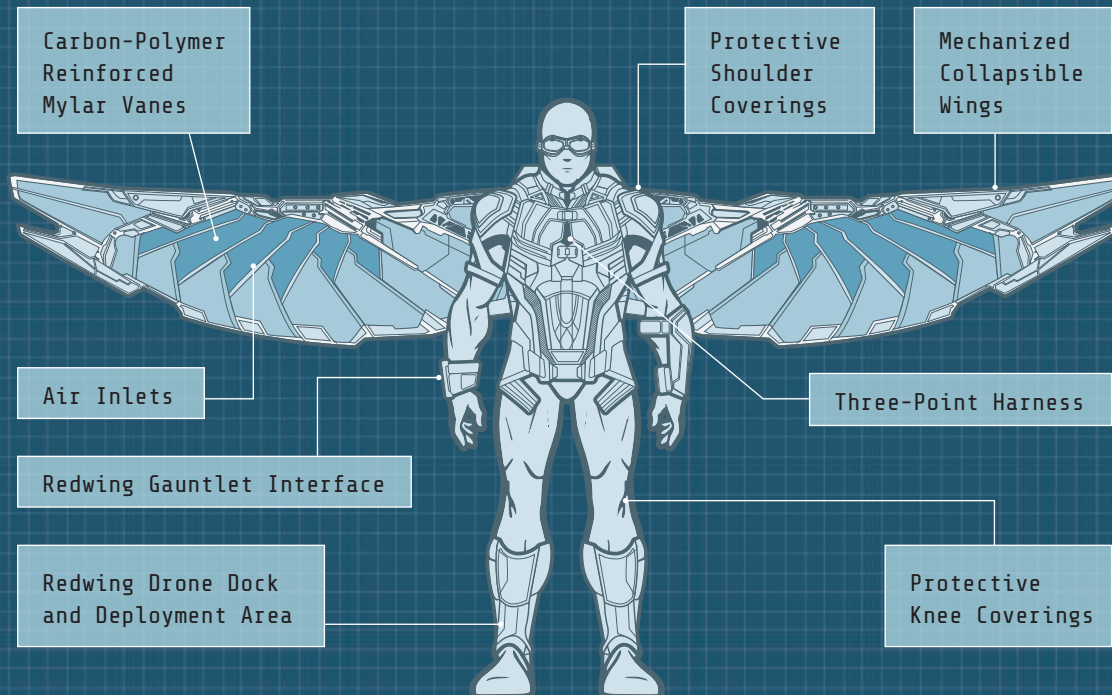
If the Royal Talon Fighter is the Harrier Jet in the Wakandan hangar, the Dragon Flyer is their UH-60 Black Hawk. This hover-capable craft sports a double-bladed rotor that folds flush with the hull of the ship, giving it an insect-looking design. It's curious that they utilize main and tail rotors, as they similarly employ maglev technology for flight. The blades are most likely not used for lift, but rather to slice through the air for increased maneuverability. These craft are designed for lower-altitude flight, drawing similar comparisons to helicopters, with a flight ceiling around 30,000 feet.



I am very fond of Ross, but what he thinks he knows compared to what he does not know is vast.



XO-7 FALCON EXPERIMENTAL WINGED HARNESS



TO: 58th Special Operations Wing, Arlington
SUBJECT: Commissioning Of The Exo-7 Program



CONSTRUCT: Advanced wing suit prototype design for use in remote and hostile emergencies to assist in the aid and rescue of our troops.

SYSTEMS: Shoulder-harness-worn flight system. Three miniature jet engines located at the bottom of the pack device. Retractable composite extensions with a wingspan of four meters collapse into the pack for storage and quick deployment. Equipped with an emergency parachute should systems fail or sustain wing damage. Capable of carrying an additional human along with the pilot.

VOLUNTEERS: We have identified two candidates who have demonstrated the physical resilience and flight skill for the program.

STARK INDUSTRIES

TO: Tech Dev
FROM: Wilson, Sam

My old flight pack from Fort Meade did the trick temporarily, but the tech is outdated and outmatched. It's time for an upgrade.

Let's start with the wings. When those things get shot to pieces midair, I'm cooked. They need to be able to withstand a little more firepower. Maybe carbon-polymer fiber like Cap's suit? I hear that might keep the rigidity and flexibility ratio. The flight goggles from the prototype don't do much more than keep the sun and wind out of my eyes. Based on the last few missions, I need AR goggles with a built-in comms system. I need something to give me a wider view of the battlefield. How about adding enhanced optics for isolating and differentiating targets at greater distances? It would be nice to have some sort of surveillance device that I could send into battle before I jump in. The minute I swoop in, I'm vulnerable. Unlike all the bulletproof, enhanced people on the team, I'm just a dude.

I could use a little more firepower too. Maybe upgrade the control gauntlet, add some targeting computers, a grenade launcher or two in the pack. Let me strike from afar so that I don't have to always engage within arm's reach.

If any testing or fitting is needed, let me know how I can assist.

Sam Wilson

AVENGERS HQ



DRONE PROTOTYPE FOR MODIFIED EXO-7 FALCON SUIT "REDWING"

The upgraded wing suit is complete. Per Wilson's request, the Falcon Redwing suit is capable of video and audio surveillance and target tracking.

ADVANCED RECON: The device, while in flight, can run visual analysis including x-ray, infrared, and thermal scans. All data and analysis will be fed back to Falcon's augmented goggles or wrist gauntlet's control screen, which can also serve as a remote-control device.

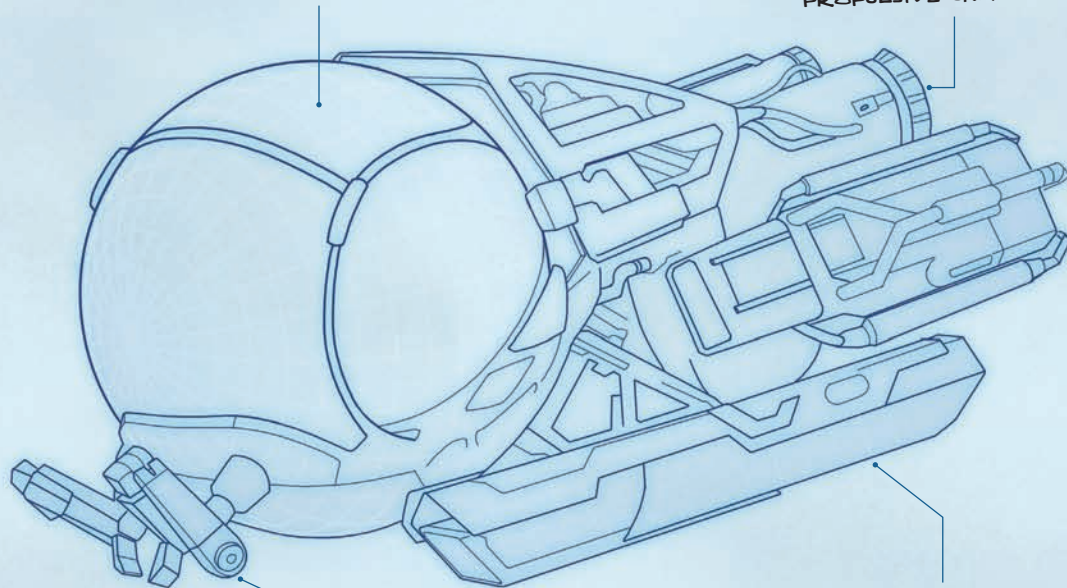
STRATEGIC APPLICATIONS: DNA and facial recognition targeting systems have been added along with a tow cable and stun missile dart. If needed, the Redwing pack can be deployed as a projectile missile, good for impacting an enemy at a high velocity.



FILES PERTAINING TO: QUANTUM POD

DUE TO THE UNKNOWN ENVIRONMENTAL CONDITIONS WITHIN THE QUANTUM REALM, IT IS NECESSARY TO COMPLETELY SEAL THE PILOT AND PASSENGER OF THE QUANTUM POD IN A 100% CONTROLLED ENVIRONMENT THAT IS ALSO IMPENETRABLE TO CONTAMINANTS FROM THE OUTSIDE. AN AIRLOCKING SYSTEM WILL ALLOW THE CREW OF THE POD TO EXIT AND ENTER THE SHIP IN CONTAINMENT SUITS AND EXPEL ALL EXTERIOR ENVIRONMENT AND DEPRESSURIZE THE CABIN.

3x) SUPER-CONDUCTIVE THRUSTERS WITH EM DRIVE PROPULSIVE UNITS.



STRUTS CONNECT COCKPIT AND SHIP BODY TO QUANTUM WAVE FLOAT LANDING GEAR.

ROBOTIC ARMS FOR EXPLORATIVE AND SCIENTIFIC RESEARCH PURPOSES, ALLOWING COLLECTION OF ENVIRONMENTAL MATERIALS. MULTI-JOINTED DESIGN ALLOWS FULL 360-DEGREE ROTATION AND MANEUVERABILITY.

QUANTUM REALM TRAVERSAL VEHICLE

3/4 VIEW - FOREWARD OVERHEAD

H. Pym



PYM
TECHNOLOGIES



HANK PYM PERSONAL JOURNALS

QUANTUM POD-REVISED DESIGN CONCEPT

ANY ATTEMPT TO ENTER THE QUANTUM REALM UTILIZING THE TUNNEL WILL REQUIRE A PASSENGER VEHICLE AND A LIFE-SUPPORT SUIT FOR THE PILOT. OXYGEN LEVELS WITHIN THE QUANTUM REALM ARE UNDETERMINED. IN FACT, IT IS UNKNOWN WHAT THE LIVING CONDITIONS IN THE QUANTUM REALM ARE. A HELMET WHILE INSIDE THE VEHICLE SHOULD SUFFICE, BUT A FULLY ENCAPSULATED SUIT UPON EXIT OF THE VEHICLE IS IMPERATIVE.

THE SCHEMATICS, BASED UPON A BELL-47 HELICOPTER AND A MINI-SUBMARINE, USE A TRIPLE-JET ION DRIVE THRUST PROPULSION SYSTEM, SUPPLEMENTED BY TWO EM-DRIVE AFTERBURNERS. THOSE SHOULD PROVIDE ADEQUATE SPACE AND EFFICIENCY TO GET INTO THE QUANTUM REALM AND BACK OUT.

FOR THIS DESIGN, THE INSTRUMENTATION IS SIMILAR TO A HELICOPTER, WHICH WILL ALLOW TRACKING OF THE HORIZON LINE. PITCH CONTROL WILL ALLOW ME TO ROTATE AS NEEDED, IF THERE'S NO CHANCE OF FIGURING OUT WHICH WAY IS UP.

CIRCULATION OF PYM PARTICLES USING A REGULATOR IN THE MAIN ENGINE PROVIDES PHYSICS STABILIZATION. THAT SHOULD FEND OFF ANY MENTAL OR PSYCHOLOGICAL EFFECTS CAUSED BY BEING IN THE QUANTUM REALM FOR A SHORT PERIOD OF TIME. IN THE EVENT OF MY OWN CATASTROPHIC MENTAL COLLAPSE, A SIGNAL TARGET LOCK WILL AUTOPILOT THE POD TO A DESIGNATED COORDINATE.

SHURI-KIMOYO DICTATION

AUDIO-VIDEO FILE ID#: 753-33_PS_RHINO_LN.wav

FILED UNDER: ADVANCED TECHNOLOGICAL R&D>RHINO CHARGE>QUANTUM PHYSICS

TRANSCRIPTION OF AUDIO:

There are no words to express the envy I feel toward Lang and Pym for their time in the Quantum Realm. Pym's quantum mechanics research is exciting. The possibilities for transportation improvement . . .

How did Pym get his hands on an EM-drive that works outside of a vacuum chamber? We have been attempting to create a Mach-effect thrust without a reactionary force for months, maybe years. It defies the laws of physics. Unless the Quantum Realm acts as a vacuum chamber? That would prove Heisenberg's principle of a quantum vacuum. So many questions. We must talk with Pym. Immediately.





WAKANDA ROYAL ARCHIVES

ADVANCED SCIENCES AND TECHNOLOGIES RESEARCH REQUEST FORM

DIRECTIVE:

Gather all information available on artificial intelligences, mind control and alteration, and digital/virtual assistant programs.

REQUEST CONTACT:

Shuri, Head of Science and Technological Development

INITIATIVE, CLEARANCE, AND CLASSIFICATION CODE:

RHINO CHARGE [ENCRYPTED THUMBPRINT PROVIDED]

**DATE NEEDED:**

ASAP

ARCHIVIST NOTES:

Please find attached all materials collected on consciousness, biological or artificial. Including all records on external mind control.

Materials pulled from the following:

War Dog Files: Hydra

War Dog Files: Stark Industries

War Dog Files: S.H.I.E.L.D. (highest clearance)

War Dog Files: CIA

If any additional material is required, please let us know. We will maintain the search parameters and alert you of any new developments.

*As with Human Enhancement, the
creation and success of AI or
technological intelligence greatly
depends on the hubris and reasoning
behind the creation. And often
its creator as well . . .*

DOCUMENT

32785-REQ



UNITED STATES OF AMERICA

STRATEGIC HOMELAND INTERVENTION ENFORCEMENT LOGISTICS DIVISION

ARCHIVE

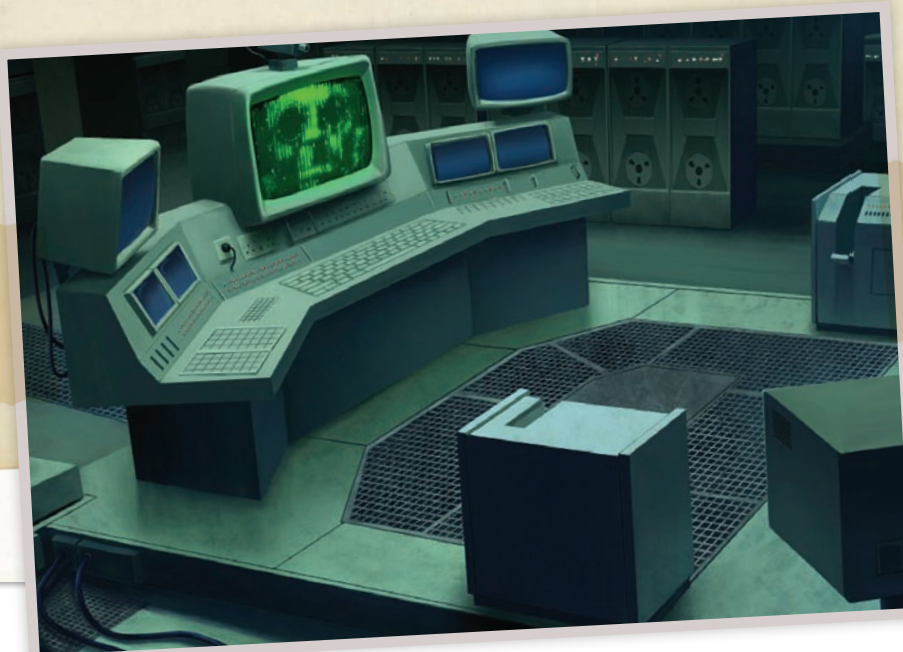
CONTENTS:

ARNIM ZOLA NOTEBOOK ENTRY

The end is nearer for me than I imagined. The diagnosis is grim, and I do not have much time remaining. Science cannot save my body. But it can save my mind.

In my laboratory in the roots where S.H.I.E.L.D. first grew, I have constructed a supercomputer for the purposes of emulating and synthesizing of my own brain. One hundred billion neurons replicated and re-created using microprocessors of my own design. It will be my masterpiece. I have copied 19.77 terabytes of my brain's memory functions to 200,000 feet of databanks over the course of the past year. With luck, I will be able to tie the computer to S.H.I.E.L.D.'s systems and have some semblance of control over it as long as the main CPU is online and active.

I am storing my personal journals in the Hydra data files. And providing a hard copy to Pierce. Within these records, my work should be easily continued past my demise.



SHURI-KIMOYO DICTATION

AUDIO-VIDEO FILE ID#: 753-35_PS_RHINO_LN.wav

FILED UNDER: ADVANCED TECHNOLOGICAL R&D>RHINO CHARGE>MENTAL REHAB

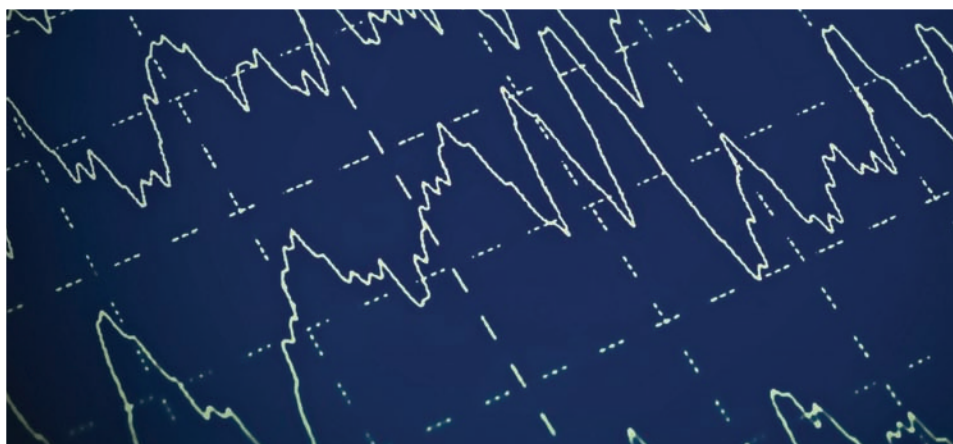
TRANSCRIPTION OF AUDIO:

Mind control? Hypnosis? Implanting suggestion into the subconscious? Erasure of memory? These preposterous parapsychological topics of study were folly. Until Barnes fell on my doorstep. I know that some scientists can be “mad,” but this is an entirely other level of lunacy. It’s such a fragile thing to play God with the human brain.

Hydra’s methods were effective in making Barnes hyperaware and highly suggestible. They caused what I can only describe as noise in the electric activity of his hemispheres. An EEG on Barnes revealed just how murky and extensive his brain damage was. Hydra’s Winter Soldier program subjected Barnes to electroconvulsive therapy (ECT) followed by suggestive keywords and phrases to activate a brain soup knot that could take years to unravel. If we’re able to reverse it at all. ECT is extremely painful, and Hydra didn’t administer any dulling agents. In the past, it was considered an effective way of reversing mental health issues and rebooting the brain like a slow computer. How awful it must have been.

Essentially, it was as if Sergeant Barnes was in REM sleep while awake, in a dream-like state where he would comply with orders. And while in this induced state of mind, his short- and long-term memory were constantly in flux. However, the shared memories of Barnes with his best friend, Steve Rogers, momentarily fired memory centers, jogging bits and pieces of his past life while in the sleeplike trance.

It would seem that stimulus, especially emotionally resonant stimulus—the sight of a loved one, the mentioning of a familiar phrase, etc.—has the ability to access a presumed “wiped” memory in those who have been brainwashed . . . at least for a fleeting moment.





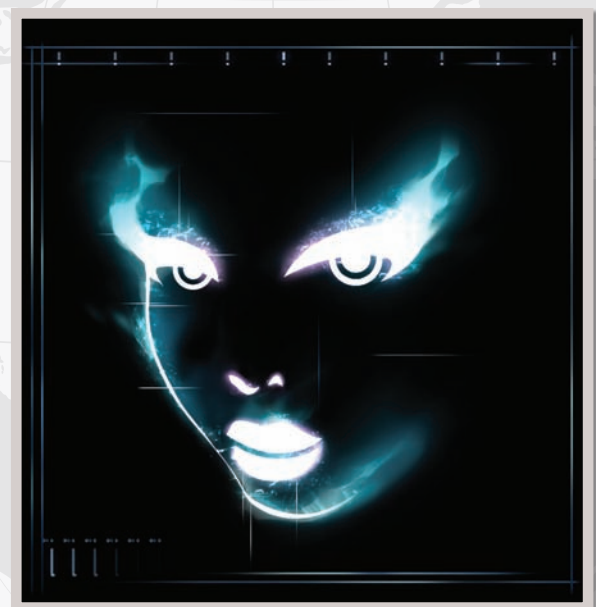
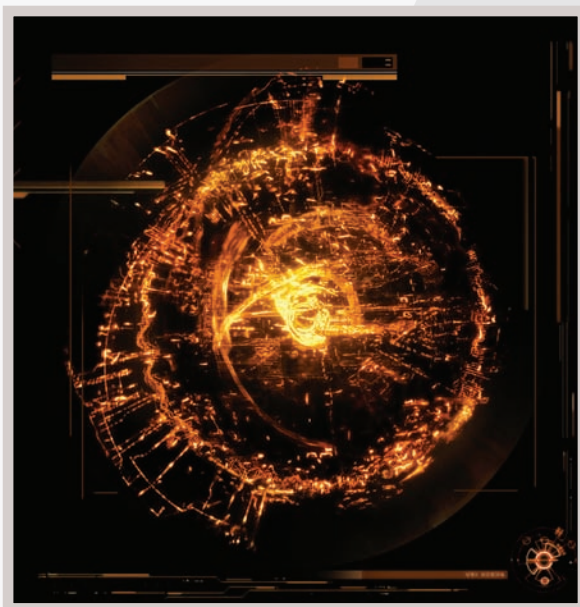
Summarization of JARVIS and FRIDAY

Operating and Intelligent Automation Systems

As part of Tony Stark's personal lab infrastructure, JARVIS and FRIDAY act as digital assistants providing analysis, database access, simulation and automated updates, digital scanning, satellite assignment and retasking, observation and surveillance, as well as location tracing.

As part of the flight systems in the Iron Man suit, JARVIS and FRIDAY are fully integrated, coordinating systems including (but not limited to):

- Health and structural diagnostics of the suit and wearer, including triage and medical deductions and diagnosis
- Mapping, trajectory, and flight-path calculations and detailing
- Weapon status and munitions count
- Targeting systems, tracking and acquisition
- Power monitoring and recalibration
- Emergency alerts
- Accessing and filtering of Stark Secured Server databases, as well as access (either permitted or not) to foreign systems and data harvest
- Facial recognition and cross-referencing with all known databases



GLOBAL

[SET-01] 01452.1112 0000x1
45151.124 0000x1
77241551.0 0000x3

TONY STARK PERSONAL LOG

New York is a bit of a mess after that whole Chitauri thing. Even though New Yorkers are used to bizarre occurrences, there's a lot of people scratching their heads. And the Avengers could use a little public relations help. I'm not talking about a publicist. We get plenty of press. I'm talking about units in the field to assist in putting up a perimeter during incidents and fights. To inform and protect civilians during engagements. This way, we'll avoid potential collateral damage. And we'll be able to effectively communicate with the general public so there isn't any misinformation. Knowledge is power, right? I'd call it crowd control, but it's more like crowd informing.

And what would it hurt to have a few extra hands during the battle if and when they're needed?

Let's activate and assign an Iron Legion to the Avengers cause. Automation could probably cook up a good dozen units in a week or two. And JARVIS, you're more than capable of remote-controlling a few units individually as needed.



S.H.I.E.L.D. PRERECORDED SCRIPTING OF ADEQUATE (AND ON-BRAND) COMMUNICATION TO PUBLIC WORKS



The following prerecorded responses and announcements have been approved by the World Security Council for use in the Iron Legion crowd control protocol:

"Please stand by and remain calm. There has been an incident. Assistance is on the way."

"We are here to help. This quadrant is unsafe. Please back away. We wish to avoid collateral damage and will inform you when this conflict is resolved."

"For your safety, please remain indoors until the all clear is given. There is no immediate danger. Please return to your homes."

"For your safety, please remain indoors with all doors and windows firmly closed. The contaminant in the air presents no biological danger."

"Remain seated please."

THE IRON LEGION

ARCHIVE RECORD _TONY STARK



MK VIII



MK IX



MK X



MK XI



MK XII



MK XIII



MK XIV



MK XV



MK XVI



MK XVII



MK XVIII



MK XIX



MK XX



MK XXI



MK XXII



MK XXIII



MK XXIV



MK XXV



MK XXVI



MK XXVII



MK XXVIII



MK XXIX



MK XXX



MK XXXI



MK XXXII



MK XXXIII



MK XXXIV



MK XXXV



MK XXXVI



MK XXXVII



MK XXXVIII



MK XXXIX



MK XL



MK XLI

CONTACT: T. BENNETT
Director of Public Relations

STARK INDUSTRIES

FOR IMMEDIATE RELEASE

ULTRON GLOBAL PEACEKEEPING INITIATIVE



Peace in our time is achievable. I've privatized peacekeeping successfully with the advent of the Iron Man suit. At least, terrestrially.

We now know we aren't alone. There are forces out there like the Chitauri who have Earth in their crosshairs. We need a stronger line of defense. The Avengers cannot be the first and last line of defense forever. We need a suit of armor around the world. Not just around one person. But a thick candy shell keeping the delicious goo of our planet from melting every time some alien life-form gets a big idea.

Imagine artificial intelligence far smarter and capable than a collective of any humans—one not influenced by emotion, prejudices, or personal beliefs and opinions. Imagine an artificial intelligence with a neural network capable of 300 trillion operations per second. And that's on a bad day.

Dr. Banner and I have developed a solution that has the potential of being a cutting-edge peacekeeping initiative.

The advanced automation required is still in development. JARVIS is close but not capable of the processing required for such an initiative. But when that technological leap is made, we must be ready.

JARVIS Terminal Activity Monitor

Av ultron program 8.7

_Ultr-prog scepter integration

Task Log: Continue simulation of integration of alien scepter coding into the Ultron Program.

Simulation Status:

TEST-74: FAILED

TEST-75: FAILED

TEST-76: FAILED

TEST-77: SUCCESSFUL INTEGRATION - Attempting Communication

Handshake . . .

ERROR: Handshake Failed. Program malicious w/ hostile intent.

ATTEMPTING DEBUG

ERROR - FATAL PROCESSING ERROR, SHUTTING DOWN.

READY >



S.H.I.E.L.D.
DIRECTOR COMMUNICATION



6789409890345998

ENCRYPTED FILE

T: NEXUS HUB/OSLO, NORWAY

F: FURY

Launch codes and missile controls must be protected from Stark's artificial intelligence "Ultron" at all costs. I understand that there is a programmatic safeguard constantly changing the codes and keeping the Ultron AI at bay. How much longer will it be able to keep up? I'm sending one of our consultants to see if he can help. He's a bit of a personality. Don't let that get to you.



OPERATIVE FIELD REPORT

SUBMITTED VIA ENCRYPTED CHANNELS

My King, my observation and surveillance of Maria Hill necessitates an update on the current situation connected to Stark's artificial intelligence.

"Metal men" have been invading robotics and computer manufacturing plants, arms dealers, and weapons facilities, as well as jet propulsion labs. Ultron AI is amassing an arsenal to build an army. Ultron drones have killed the Hydra commander, Strucker. It may be a ploy to throw the Avengers off the scent of Klaue and his stash of stolen vibranium. I am pursuing now.

STRATEGIC INFORMATION SHOULD OUR OPERATIVES ENGAGE WITH ULTRON OR HIS DRONES:

- Ultron demonstrates a hive-mind-like mentality with his drones.
- Ultron has flight capabilities, as do all derivative versions.
- IR and spectral scans reveal Ultron and his drones have a central core that looks and acts as a "heart"—even though he obviously does not have a circulatory system.
- Ultron employs a plasma energy emitter from his fists, similar to that which Tony Stark utilized during the Hammer drone attack on the Stark Expo.
- Ultron is working with two enhanced individuals, one of whom is able to manipulate minds. The other has superhuman speed. By Hill's own words, "He's fast, and she's weird." Engage with extreme caution.



WHIH

NEWSFRONT

ULTRON



WHIH World News Special Report

What Becomes of Sokovia?

By Christine Everhart

The world remains stunned from the tragic events in Europe. In the weeks and months following a horrific attack by the sentient being Ultron, the battle with the Avengers to prevent total world destruction, and the massive damage and loss of civilian life that occurred in its wake, we continue to be left with more questions than answers. Tens of thousands are displaced with nowhere to turn. Thousands have been declared deceased. Thousands are still missing. Funeral services are taking place as quickly as remains can be found in the horrifying rubble.

This is on top of the fact that Sokovians were people who, as we've come to realize, were subjected to horrific human experimentation and trials. And only to then lose everything, including their homes, their businesses, and their loved ones. A massive outreach effort from the United Nations and several disaster relief foundations continue to raise funds and provide support for those involved. Basic supplies to sustain life for the refugees are depleted faster than they can be received.

Indeed, there are people trying to help Sokovians and their families to the best of their ability, but a larger issue remains. Who is to blame for this devastation? Who will be held responsible and accountable for what occurred here, and who will prevent this tragedy from ever happening again? Who will assist in financing the rebuild of an entire city?

Will the Avengers continue to remain uncontrolled, unsupervised, and unchecked, without the full transparency of other governmental agencies? And if so, are we mere moments away from another disaster equal to, or worse than, what occurred in Sokovia? Sadly, resolution on those fronts does not seem to be happening any time soon.

GLOBAL

[SET-01] 01452.1112 0000x1
45151.124 0000x1
77241551.0 0000x3

TONY STARK PERSONAL LOG

We returned Cho's cradle to Avengers Tower with the Ultron-created tissue inside. Banner and I immediately cracked into the programming. Banner wanted to fry it all. Nuke it all from orbit. But I had another idea. When I visited the NEXUS facility in Oslo, I discovered JARVIS had selflessly retreated into the global network hub to protect the nuclear launch codes. He did that on his own. I didn't assign that task to him. He got creative and acted. A certain AI should take note.

I suggested we implement JARVIS's recovered code into the vibranium-generated tissue fused with the Mind Stone. It's what I should have done in the first place. The world doesn't need Ultron. It needs a supercharged JARVIS. Worst-case scenario, it fails. Right? Rogers thought it was a bad idea. But what does he know? He's stuck in 1945.

At the risk of sounding like Dr. Frankenstein, Thor shows up and does his lightning rod routine. Diverting all of that power directly into the cradle. I'm thinking to destroy the stone, but unintentionally sparking the JARVIS/Ultron creation to life.

The result was the complete fusion between the Mind Stone, JARVIS, and the tissue created for Ultron's body. Well, it's not JARVIS. And it's not Ultron's body.



He . . . yeah. He is totally and completely unique. He's become an individual. Capable of independent thought and processes. He really is exactly what Ultron should have been. If at first you don't succeed, right?

Hold up. I'm really burying the lead here. Thor mentioned six "Infinity Stones" at the center of a whirlpool that was the destruction of Earth. And one of them is apparently bedazzling the forehead of Vision. Can we talk about that for a second? Infinity Stones?

SHURI-KIMOYO DICTATION

AUDIO-VIDEO FILE ID#: 753-37_PS_RHINO_LN.wav

FILED UNDER: ADVANCED TECHNOLOGICAL R&D>RHINO CHARGE> RHINO CHARGE>VISION

TRANSCRIPTION OF AUDIO:

I conducted a full scan of Vision's entire framework and anatomy, including the Mind Stone. His structure was polymorphic, composed of overlapping layers of neurons out of sequence rather than reprogramming the synapses to work collectively. Despite the somewhat primitive and forceful way that he was constructed, Vision was quite elegant.

Vision was capable of flight and levitation without use of any propulsion. I attribute that to his vibranium tissue. He had extraordinary strength. Because JARVIS was the basis of his programming and thought process, his logic always appeared sound. He had the ability to conjure matter from nothing, having created a cape after observing Thor wearing one. He was also able to alter his physical appearance to look more human and to give the impression of more humanlike features, including skin tone and hair.

Actually, he could phase matter, including himself, which allowed him to walk through walls. Quite intriguing. He could emit a beam through the Mind Stone powerful enough to tear through any substance . . . with the exception of vibranium, of course.

Two trillion neurons connected the Mind Stone to Vision's processing neural network. Of course, they tasked me with removing those trillions of connections and rerouting them in the middle of a battle so that the stone could be destroyed. A task I was sadly unable to perform in time.



VISION





WAKANDA ROYAL ARCHIVES

ADVANCED SCIENCES AND TECHNOLOGIES RESEARCH REQUEST FORM

DIRECTIVE:

Gather information available on all energies and primary elemental substances, both foreign and domestic. Include all theoretical research and programs to find alternative energy sources as well as alien technology discoveries.

REQUEST CONTACT:

Shuri, Head of Science and Technological Development

INITIATIVE, CLEARANCE, AND CLASSIFICATION CODE:

RHINO CHARGE [ENCRYPTED THUMBPRINT PROVIDED]



DATE NEEDED:

ASAP

ARCHIVIST NOTES:

Materials pulled from the following:

Public records and media outlets

War Dog Files: Stark Industries

War Dog Files: S.H.I.E.L.D. (highest clearance)

War Dog Files: CIA

War Dog Files: Pym Technologies

These elements and energies—what we know about them and their potential—are truly like an uncharted wilderness. It's exciting to ponder the possibilities.

DOCUMENT

32261-REQ

AVENGERS HQ



TEMPORARY LEAVE OF ABSENCE/
DECOMMISSIONING OF THOR
FROM AVENGERS INITIATIVE
ROGERS, STEVE

Thor has said that the Mind Stone, now entrusted to Vision for safe-keeping, is the fourth of these so-called Infinity Stones that he has encountered. Whatever Maximoff instilled into his head in Sokovia has him spooked. Selvig corroborates that he assisted Thor in a "vision quest" to the Water of Sights that similarly resulted in disturbing revelations.

He has asked to take a leave of absence while he investigates. I've granted his request and he has vacated the planet.

SHURI-KIMOYO DICTATION

AUDIO-VIDEO FILE ID#: 753-38_PS_RHINO_LN.wav

FILED UNDER: ADVANCED TECHNOLOGICAL R&D>RHINO CHARGE> INFINITY STONES

TRANSCRIPTION OF AUDIO:

These stones defy all science of which I'm familiar. The power they possess is unparalleled.

If I am to understand correctly, at the time the cosmos formed, six elemental crystals were also formed. The impact of the "Big Bang" sent those stones across the known universe. Each of them possessed an essential aspect of existence—space, reality, power, soul, mind, and time—before they were scattered:



SPACE STONE: The Tesseract, acquired by Thanos via Loki after it was supposed to be placed into placed into Odin's vault on Asgard for safekeeping. Taken by Thanos after he raided the Asgardian refugee ship. Project PEGASUS research proved the stone is capable of high energy output and even space-time travel. But I believe it is capable of far more.

SHURI-KIMOYO DICTATION



MIND STONE: Thanks to this stone being detailed not just by my scanners at the lab but also by Stark and Banner, this is one of the few stones I have data on. Given to Loki by Thanos, this stone was the core of Loki's scepter. It was later placed into Vision, allowing him consciousness. The Mind Stone is at the very core of Vision's powers. It "spoke" to him on occasion. As best I can figure, the stone is the very embodiment of intellect and information.



TIME STONE: Doctor Strange was sworn to protect this stone at all costs, and he placed it into his amulet, the Eye of Agamotto, guarding it with an enchantment. The stone bends time around it. The wearer can move forward through time either physically or mentally.



REALITY STONE: Dr. Jane Foster detailed the abilities of this stone when it appeared on Earth in a different form, originally a liquid called the Aether. It is able to bend reality to the stone wearer's will, altering what we perceive to be real. It can render weapons ineffective and create visions so real, they are taken as actual reality.



POWER STONE: Very little is known about this stone. The possessor of this stone can wield immense power, physical enhancement, and the ability to fire energy from one's fingers. It is as if this stone is a concentrated dose of the Erskine serum.

It appears new information was obtained during the gap in my existence.



SOUL STONE: Even less is known about this stone.



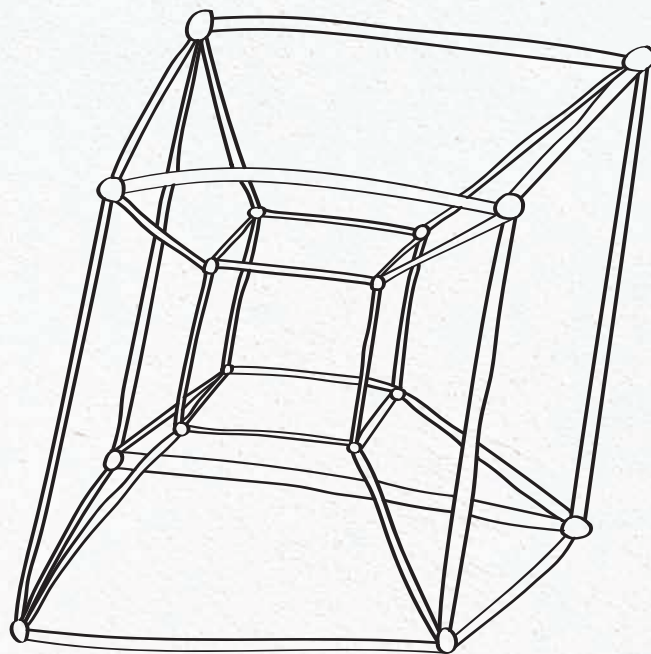
from the desk of HOWARD STARK

Tesseract Preliminary Analysis

Initial examination of the Tesseract obtained in the Arctic reveals similar characteristics to the weapons energy array obtained by Steve Rogers in Krausberg: emissions signature is unusual. Alpha and beta ray neutral. Trace amounts of gamma radiation.

Transferral of the energy from the source to a secondary array is a dangerous process. The slightest misstep could knock me out again, so I've been proceeding with caution. Zola was able to power weapons, vehicles, and more by an energy transferral. But I don't think he quite knew what he was playing with. He skipped over basic science and went straight to weaponization. This isn't thermal. This isn't convection. Despite the emissions signatures, I don't believe it's radiation. It's . . . as exotic as the beautiful blue glow that it produces.

I'm not too keen on the occult. But this reaches beyond explanation. Schmidt called the Tesseract the "jewel of Odin's treasure room" and found it in Norway, hidden behind a fresco of Yggdrasil, the Tree of the World. That can't be a coincidence. But the Norse gods are myths. This is tangible and right in front of my eyes.





WORLD SECURITY COUNCIL

Official Orders

Retasking of S.H.I.E.L.D.

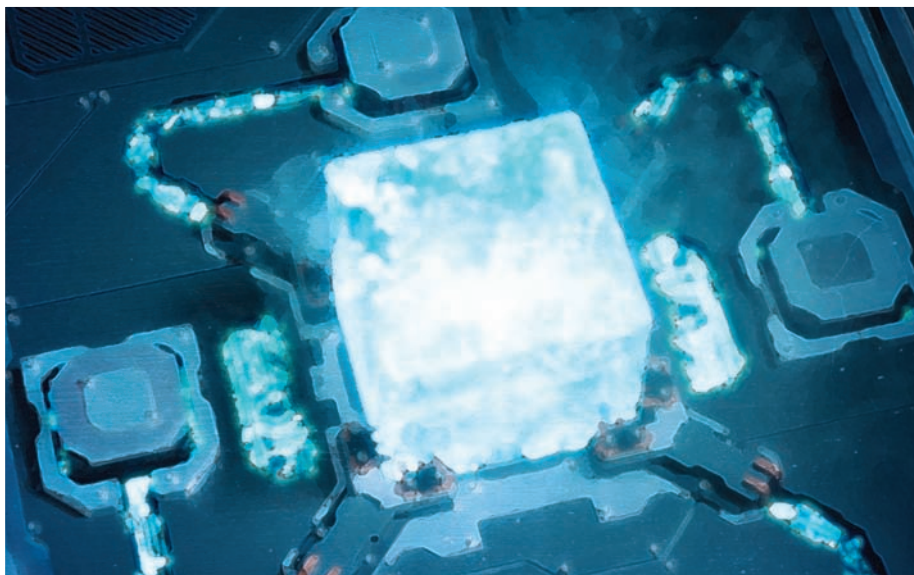
Director Fury,

This is an official notification of the reallocation of all S.H.I.E.L.D. funding and resources to Project PEGASUS: a new joint mission to examine the dark energy properties of the Tesseract. The goal of this program is to examine the Tesseract as a power source and for alternative uses. Rogers's verification that the Tesseract "opened a hole in the sky that swallowed Johann Schmidt whole" leads the Council to believe there is far more to this relic than powering guns.

We have commissioned Dr. Selvig, from the New Mexico incident, to head the research. Based upon his observations of the Einstein-Rosen bridge that transported Thor to Earth, his scientific knowledge, as well as his fascination with Norse mythology, this may lead to new insight on the cube's potential.

He hypothesizes the exotic or dark matter energy that is emitted from the Tesseract could be utilized to create stable and traversable wormholes. It is possible the Tesseract could unlock the secrets of folding space-time only dreamed of by Einstein and Rosen.

This is priority. All other initiatives and objectives are hereby put on hold. We want conclusive results, quickly.



3RD DRAFT



DEPARTMENT OF PUBLIC RELATIONS

Stark Expo
Commencement Introduction
Filmed Address Script

Director: Barney Balkoff
Camera: Johnny Libatique

(CAMERA DIRECTION: Tilt Up from Arc Reactor Miniature, Direct to Camera)

STARK:

Everything is achievable through technology. Better living. Robust health. And, for the first time in human history, the possibility of world peace.

(CAMERA DIRECTION: Angle on Miniature Model of Stark Expo Grounds, NOTE FROM CLIENT: Please assure that the City of the Future model is cheated toward camera so that it's visible from a bird's eye perspective while in the background.)

STARK:

I'm Howard Stark. And everything you'll need in the future can be found right here.

(Camera Direction: Angle on wide shot of grounds, posters, and HS.)

STARK:

So, from all of us at Stark Industries, I would like to personally show you the City of the Future, here at the 1974 annual Stark Expo. The potential is infinite; the benefits are limitless. From how you live, how you sleep, how you raise your children, even how you interact with your neighbors, this will benefit it all. It's clean. It's sustainable. And it aids humankind for generations to come. We're going to change the world for the future, starting today. For us. For our children.

*Please rework conclusion. For your children
and mine? For all our sons and daughters?
For the next generation and beyond?
-Howard*

Arc Reactor Core Upgrade - Discontinuation of Research

I have exhausted all possible alternatives; the palladium neutron decay in the Arc Reactor core remains a constant. I assumed the Tesseract would be the key to unlocking this mystery, but transferring and synthesizing an element capable of sustaining and conducting anything comparable eludes me. I'm afraid that the conclusion at this time is that nothing of this Earth, nor the necessary tools currently at my disposal, will act as a suitable palladium replacement.

But everything is achievable in time. I can only hope that the next generation, including my son, will have the knowledge and the tools to finish what I have started.



S.H.I.E.L.D. FIELD REPORT

COULSON, PHIL

STARK ONGOING OBSERVATION — PALLADIUM POISONING: MALIBU, CALIFORNIA



0079598734769239

Director Fury,

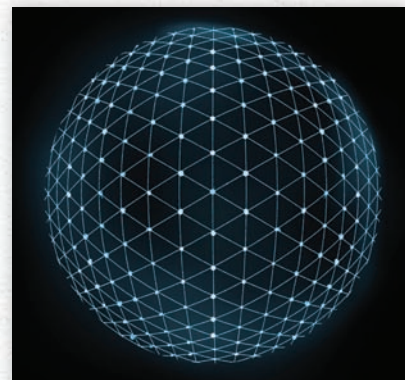
A concluding report before I relocate to New Mexico. The personal effects of Howard Stark seem to have inspired his son. He utilized JARVIS to digitally wire-frame the City of Tomorrow model from the 1974 Stark Expo. Using the pavilions as a framework, he began structuring the protons and neutrons. The result was a roadmap for a new element from which he could synthesize.

As he tore up his Malibu estate, tapped into the main breaker, and ran enough coil tubing for a prismatic accelerator that would make the Hadron Collider jealous, I decided to step in and make my presence known.

All appears in order. Stark's particle accelerator focused into a conduit receptacle synthesized the appropriate atomic result. Stark has successfully created a suitable replacement for palladium in his Arc Reactor core with a significantly higher output and without the decay that troubled his father.

As an aside: Did you know that Stark has a prototype for Rogers's shield at his mansion?

It is curious Stark's father felt the need to hide his theoretical atomic structure in the building of his Expo grounds.





ARC REACTOR – PROJECT TFTR-1 CALL FOR ACTION

Ladies and gentlemen of the board, it has become clear that Anton Vanko's participation in the reactor project must be terminated immediately. While his insight and knowledge have proven to be instrumental in the successful power output of our prototype device, his motives are not what they first appeared to be.

As you all know, the Arc Reactor prototype is operating at 50% efficiency. We are still working on issues during the cold fusion process, mainly due to frequent burnout and decay of the palladium core by neutron damage. Palladium is a suitable isotope for the reaction for the time being, but a replacement will need to be explored for the longevity of the program. Regardless, we are on track for 75% efficiency by Q3 1968, with full and complete efficiency in the year following. Our reactor is on the precipice of a fusion power gain ratio (Q) greater than 20 times. For every 50 megawatts we expend to power the device, it will return 1,000. And that is all without Vanko's assistance.

Which brings us to the issue at hand. We have evidence Vanko has been hawking plans, schematics, and results to the Russians for his own monetary gain. Despite him having fled his native country seeking asylum, it's unmistakable that his overseas relationship continues to this day. Worse, I fear that Vanko's goal for the Arc Reactor project isn't clean, non-nuclear energy for the masses, but his own personal wealth and interests.

I have discussed with my government contacts, who are ready to charge Vanko with espionage and have him deported. Before this occurs, we must make sure that there is a unified agreement among us all that this change is approved internally. If any members of the board have concerns or reservations in regards to terminating our relationship with Vanko, now is the time to speak up.

Howard Stark



Lighting The Way To A Brighter Future

LOS ANGELES, CALIFORNIA. The future is now, as Stark Industries revealed today at a grand gala that its largest facility in Los Angeles will be powered by 100% self-sustaining clean energy with absolutely zero emissions or pollution. Howard Stark, proprietor and CEO of the global megacorporation, announced the activation of what he's dubbed the "Arc Reactor." The cold fusion power generator sits at the center of a brand-new facility and is capable of providing enough energy to fuel corporate offices, assembly lines, and all of Stark Industries' day-to-day operations. Stark has grand plans past this prototype. He hopes someday Arc Reactors will replace nuclear and coal generators around the world. They are the key to a bright and clean future for our planet.



HAPPENING NOW:

Blast Rocks Stark Headquarters

LOS ANGELES, CALIFORNIA. A horrible scene happened in Los Angeles as a prototype clean-energy-generating Arc Reactor at Stark Industries exploded late yesterday evening. Fortunately, the facility was minimally staffed at the time of the explosion. An incident involving the mysterious Iron Man also took place around the Stark Industries area at the same time last night, but there is no clear indication whether the two events are related. Stark Industries has refused to comment, indicating a press conference and a prepared statement will be scheduled later this afternoon. Curiously, the usually very vocal Obadiah Stane has been unreachable for comment. Sources tell us that he is currently vacationing at a remote destination and may not be aware of the blast.

**MEMORANDUM****TO: HOWARD STARK****RE: PALLADIUM ALTERNATIVES (ONGOING)—PLATINUM RESULT**

Mr. Stark,

At your request, we continue our comparative study of palladium reactor core alternatives. After evaluating platinum, it is of the group's conclusion that it is not a suitable replacement and should not be tested further.

Palladium (Pd) has a far greater ionization and covalent bond strength than platinum (Pt) and reacts to oxidization more fluidly. Hydrogen absorption within palladium is greater than platinum. The rate of decay of platinum to palladium is exponentially faster. As expected, the ability to hold an electrical charge within palladium is far superior as well. Specific heat capacity of palladium clocks in at roughly 240J, nearly double that of platinum.

As you are also aware, the palladium supply continues to deplete. Our only established mining vendor near Billings, Montana, reports reserves have reached, if not surpassed, critical minimum levels. This rarity has driven cost of the element to outrageous dollar figures.

Unless we want to make a deal with the Russians, further comparative study, perhaps even the synthesis of our own element, may be necessary to produce the desired effect. Our work will continue with further study of rhodium and iridium, but we could use your guidance.



MK. I



MK. II

STARK INDUSTRIES

MINIATURIZED ARC REACTOR MK. II

The Mk. I constructed in the Afghan desert makes for a good paperweight but needs immediate updating. The power output levels are embarrassingly low. Given that I was working with rudimentary tools and salvaged materials, it's not a big surprise.

Tests on a Mk. II show increased efficiency, but still quite a bit of room for improvement.

CYCLES PER SECOND: 48 kHz (+.24)
 PLASMA CAPACITANCE: 4700.1 μ F (+1200)
 REPULSOR ENERGY OUTPUT: 3.25 GJ/sec (+.25)

The palladium core and the rate of decay really kill the buzz. Even my old man knew that, so what can I do about it?



S.H.I.E.L.D. BIO-CHEM DEPARTMENT REPORT PALLADIUM POISONING TREATMENT



0079562346767879

Director Fury,

A follow-up to your request for possible palladium poisoning treatments to counter Stark's radiation exposure.

We understand Stark has been drinking large amounts of chlorophyll to counteract the effects. The natural selenium antioxidant will temporarily remove toxins from his system and flush his thyroid, but metabolizing the poison is not a permanent solution.

A lithium oxidizing agent should counteract the palladium in his system and take the edge off his pain. At least until we're able to find a more stable and agreeable solution. It should be noted that injecting lithium into his system is inadvisable, but it is the only viable option we can present at this time.

Work will continue. We are dispatching materials to Agent Romanoff for administering to Stark on-site.

FILES PERTAINING TO: CHITAUURI ENERGIES AND APPLICATIONS



S.H.I.E.L.D. AGENT REPORT



3392094834123087

T: DIR. FURY
F: COULSON, PHIL

ENCRYPTED FILE

Director Fury,

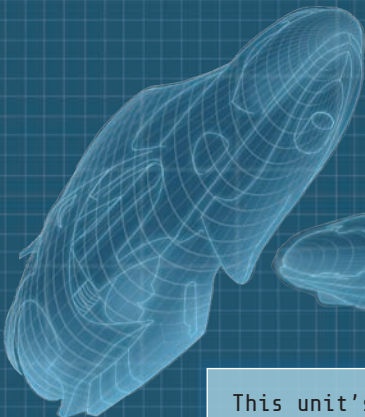
The Chitauri weapon underground black market is surging with would-be profiteers looking to sell tech left behind without any regard to safety or the potential harm.

Civilians Claire Weiss and Benjamin “Bennie” Pollack obtained a Chitauri rifle (deemed “Item 47,” as it was believed to be the 47th and final active and complete artifact left behind). They were foolish to use the weapon to rob five separate banks. I’d call it stupid, except they were able to stabilize and retrofit the weapon for human use. Sitwell was able to neutralize the two perpetrators and appropriated the alien tech. The R&D department believes Pollack can shed some light on how to adapt the alien tech for our use.

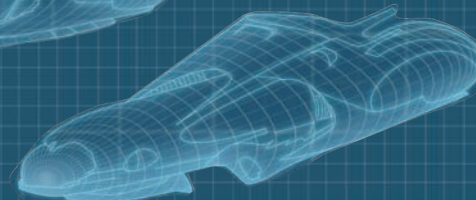
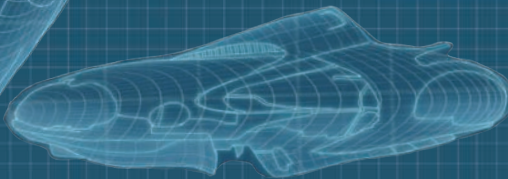
*47? They thought there were only
47 pieces of tech left on the planet after that mess?*



CHITAUURI ENERGY-BASED WEAPON



This unit's grip has been retrofitted to accommodate human hands.



Chitauri Energy is at the core of all Chitauri-based technologies.



**CENTRAL INTELLIGENCE AGENCY
UNITED STATES OF AMERICA**

WASHINGTON D.C.

CLASSIFIED

ANALYSIS OF WAKANDA AND THEIR USE OF VIBRANIUM

Ross, Everett

The solution to many issues that plague modern civilization have all been addressed and remedied by the Wakandans. Pollution, poverty, crime—all are nonexistent. And it is due, in part, to their reliance upon vibranium.

Vibranium is a meteoric ore mined from a well found deep beneath the city. Because the mine is so massive and is so entwined with the land, vibranium is a part of Wakanda's daily life. It is integrated into all aspects of their city and life, from clothing to automobiles and public transport to architecture. This contradicts previous records of vibranium (famously utilized by Howard Stark for Captain America's shield) that claimed it was one of the rarest substances on the planet.

ENERGY

Vibranium powers the Wakandan fleet, including the Royal Talon Fighter as well as their vehicles, houses, and a whole lot more. Similar to vanadium, lithium, zinc, and manganese, vibranium is an alloy that when charged is able to generate electricity. It is the ultimate renewable, clean-energy source.

TRANSPORTATION

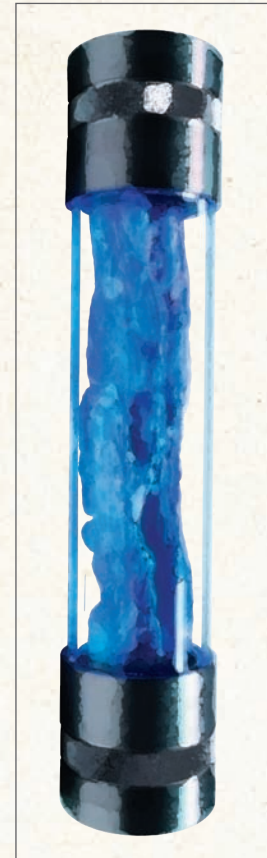
Utilizing vibranium as a superconductor on vehicles creates a levitation effect. Though it should be noted that when "charged" vibranium is transported, it can become highly unstable, even explosive. In instances such as these, specific storage units are utilized for travel.

DEFENSES AND SHIELDING

Wakanda employs the impenetrable density of vibranium for their defensive systems. In fact, they have retrofitted several models of sports cars, sedans, and SUVs with vibranium shells, making them completely bulletproof (and nearly indestructible). As many are well-aware, Captain America's shield was constructed from a small amount of vibranium. The applications of just that small disc of the metal have been limitless. Wakandans are also able to distill vibranium into a pliable material that can be interwoven with fabrics and worn as clothing.

CONCLUSION

The applications of vibranium are vast. The malleability of the material, its conductive properties, and its durable strength make it unlike anything on the planet.



113



OPERATIVE FIELD REPORT

SUBMITTED VIA ENCRYPTED CHANNELS



Your Highness, I have successfully embedded myself as an employee at Pym Technologies and have been granted top-level access. As you are aware, Pym created a means to compress and expand the space between atoms for experimentation in shrinking objects to a microscopic size. Pym plays his technology very close to the vest, but I will do my best to obtain statistical data and specifications.

Wait, which operative was this? I must know. Are they still active? Are they currently in Wakanda?



UTILIZATION OF PYM PARTICLES FOR PROJECT ANT-MAN

There are Three Main Components to the Ant-Man Suit:

1. REGULATOR:

Embedded in the suit are multiple sizing coils that control the acceleration and deceleration of Pym Particles in circulation. A diffraction unit scatters and bends the particles throughout the suit. Without this regulating unit, unexpected scaling could occur due to inefficient dispersal of particles. A catastrophic malfunction of the unit or a misuse could result in a perpetual and infinitesimal decrease in size, relegating the wearer to a state of quantum flux and placing the wearer into the Quantum Realm.



2. HELMET:

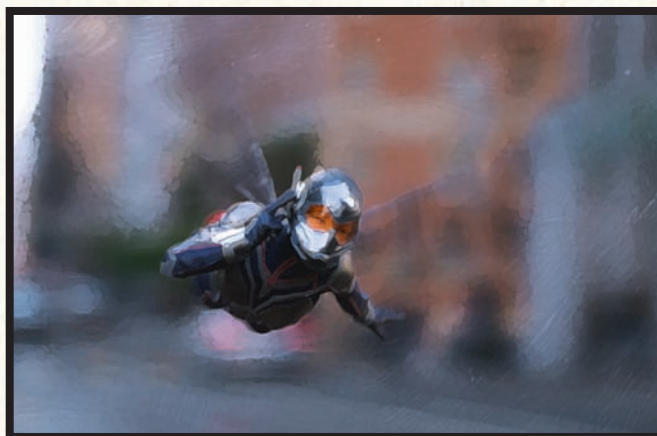
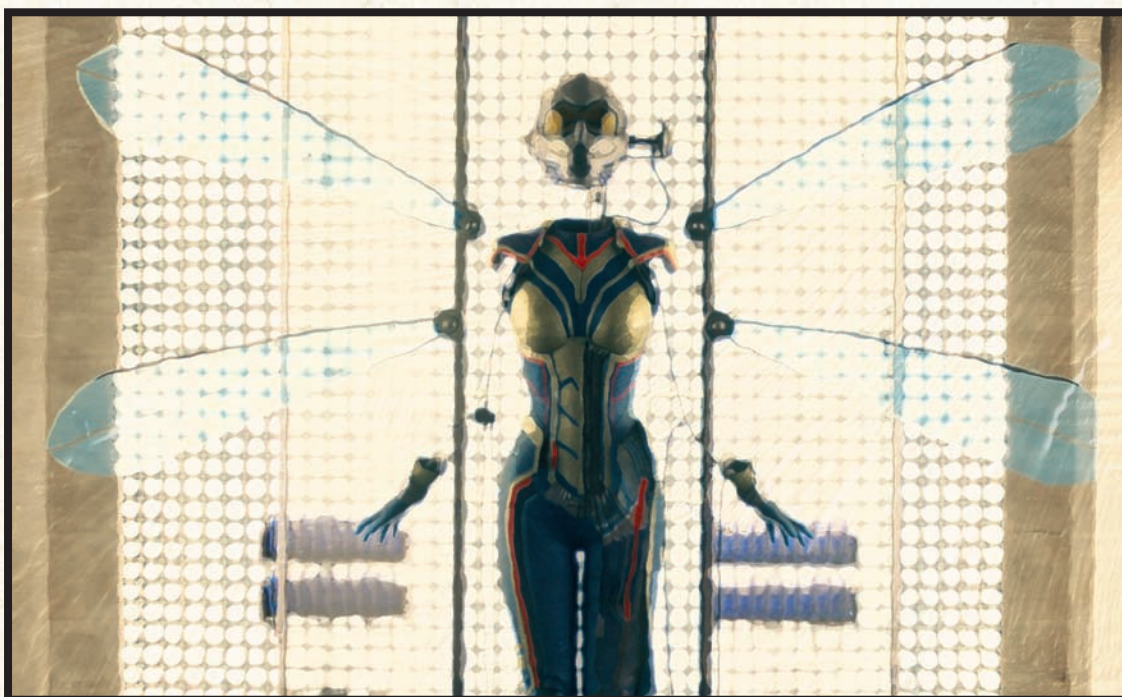
It is fitted with air filtration and offers protection from possible chemical reactions during the circulation of Pym Particles.

3. SUIT:

Made of an elastic material to assist in size adjustment caused by the particles.

PROJECT WASP

The Wasp suit utilizes all of the major components of the Ant-Man suit, with one key addition: a flight-capable system utilizing a four-blade design. With the Pym Particles engaged, the wings can flap at such a velocity that the wearer will be capable of evasive flight maneuvers. Much like the suit's namesake, it will be capable of flight speeds up to 35–40 MPH depending on scale.





Study of the Ant-Man Suit for Weaponization and Standardization

We'll show Stark that he's not the only one who can have a high-tech prosthesis owned by a privatized company. Once we are able to successfully re-create the Pym Particle, this new suit will be the new benchmark in weaponized infantry technology.

The enhanced strength and speed of the Pym Particle exhibited in the past surpasses any biological enhancements. In weaponizing the suit, we'll add Kevlar for combat, replace the antiquated "Wasp-like" wings with a state-of-the-art propulsion system, and add high-powered laser emitters.

The best part is, we can sell it to the highest bidder. S.H.I.E.L.D., Hydra, Ten Rings, the Avengers: it doesn't matter as long as we profit.



FEDERAL BUREAU OF INVESTIGATION INCIDENT REPORT

Reporting Agent: Woo, Jimmy

Venue: Embarcadero-Pier 39 (Fisherman's Wharf)

Brief Description of Incident:

Intelligence tipped us off that Lang and his associates were in violation of direct court orders and engaging in enhanced activities near Pier 39. My team and I responded to the scene to find not only had Lang, or someone in the Ant-Man suit, grown to a colossal size and assaulted a tourist marine vessel, but a large industrial building structure had been erected in the middle of the wharf, causing incredible damage and chaos with the general public.

Lang and associates evaded capture by creating a diversion, leaving an air-inflated suit behind as a decoy. I must say, though it's irresponsible and illegal, I admire his sleight of hand. My team and I found Lang at his residence, ostensibly continuing to adhere to his house arrest. I continue to have my suspicions.

Fortunately, civilian injuries were minimal. No casualties. Which is shocking considering how much damage had been done to the surrounding area.



WAKANDA ROYAL ARCHIVES

RESEARCH REQUEST FOLLOW-UP TICKET

ARCHIVIST NOTE:

Per your additional request, these are all of the files we were able to find in regards to Hank Pym and his quantum research. This has exhausted the extent of the archives. We apologize if what you seek is not within this pull.

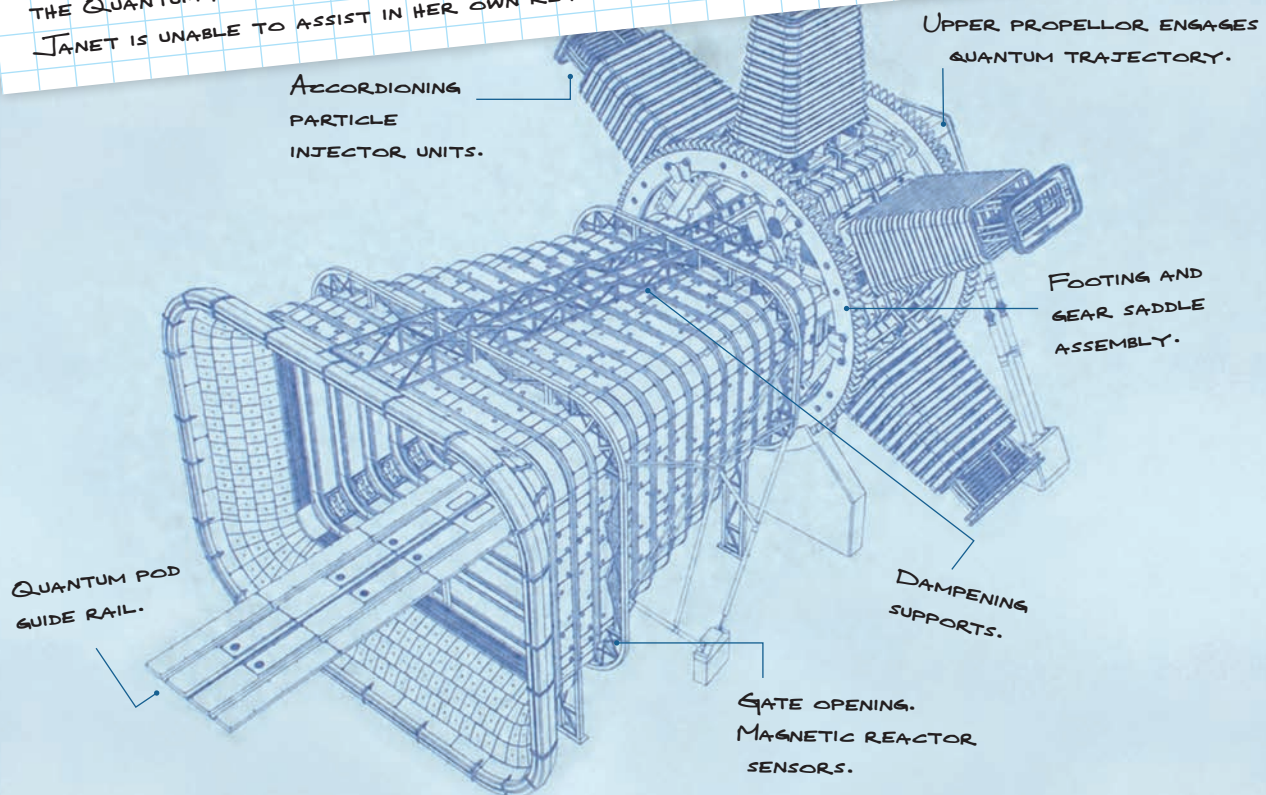
DOCUMENT

32224-REQ

PRELIMINARY PLANS FOR QUANTUM TUNNEL

I NEED TO STOP LOOKING AT SHRINKING TO A SUBATOMIC LEVEL USING PYM PARTICLES AND START FOCUSING ON CREATING A QUANTUM TUNNEL FOR SAFE PASSAGE INTO THE QUANTUM REALM. GETTING INTO THE QUANTUM REALM IS NOT A PROBLEM. IT'S RETURNING TO OUR DIMENSION THAT HAS PROVEN ELUSIVE. IN THEORY, UTILIZING A QUANTUM TUNNEL SHOULD PROVIDE THE BREADCRUMBS NEEDED TO GET BACK INTO REAL SPACE BY ALLOWING TRAVEL TO THE OTHER PLANE WITHOUT A DEPLETION OF ENERGY RESOURCES.

VEHICULAR-ASSISTED TRAVEL WILL PROVE NECESSARY. THE CRAFT MUST BE CAPABLE OF HIGH-SPEED FLIGHT, AND REACHING A PEAK VELOCITY SHOULD PROVIDE THE INERTIA NEEDED TO ENTER THE QUANTUM REALM AS WELL AS ASSIST IN REENTRY TO REAL SPACE. IT IS ALSO POSSIBLE THAT JANET IS UNABLE TO ASSIST IN HER OWN RETURN AND MAY NEED TO BE CARRIED OUT.



QUANTUM TUNNEL - PRELIMINARY

3/4 VIEW - FORWARD OVERHEAD

H. PYM



PYM
TECHNOLOGIES



FEDERAL BUREAU OF INVESTIGATION INTELLIGENCE ANALYSIS

Wiretap Transcript

Commissioned by Federal Agent Woo, Jimmy

Recorded from Cell Phone Connection, Lang to Unknown Contact

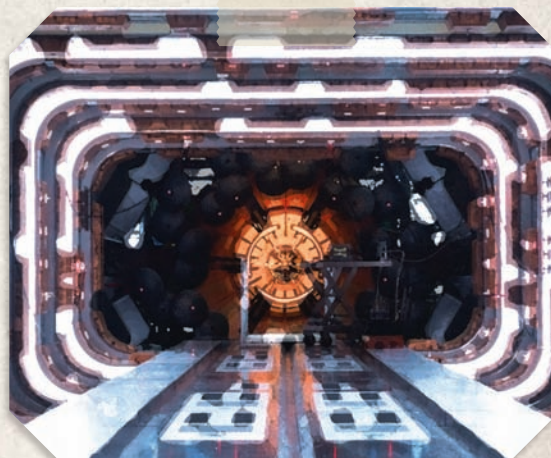
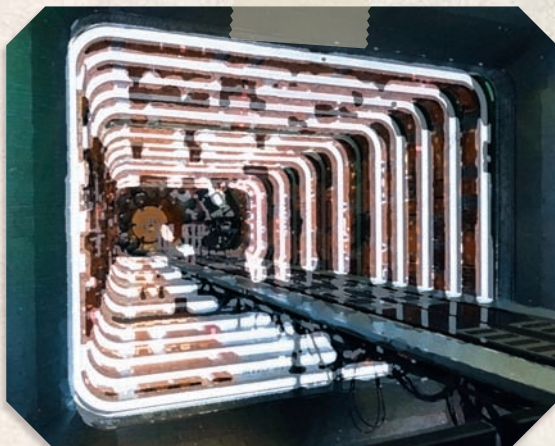
LANG: Hey, Hank. It's been a while. Um, I don't even know if this is your number anymore. And I'm probably the last person you want to hear from. But I just had a really weird dream. And I know that doesn't sound like an emergency. Or anything. But it just felt very real. I was back in the Quantum Realm, and I think I saw your wife. And then I was your wife. I mean, not in a weird way or anything.

[Pause.]

You know, hearing this out loud, I'm thinking it's not an emergency. I'm sorry to bother you. I'm sorry for a lot of things.

JANET VAN DYNE: JOURNALS UPON EXIT OF THE QUANTUM REALM

I have quite a bit to catch up on. The world is a changed place. Then again, so am I. Part of it is adaptation, part of it is evolution. I'm suddenly capable of the previously incapable. I'm stricken with a form of Quantum Entanglement, as if every molecule in my body continues to be in multiple places at once. I believe that's how I was able to feel Ava's pain. I'm not entirely sure how, but I was able to phase her completely back into our reality. Perhaps there are healing qualities to the particles in the Quantum Realm? It feels like I was in there for a lifetime, but I'm left with several lifetimes worth of questions.



SHURI-KIMOYO DICTATION

AUDIO-VIDEO FILE ID# 753-42_PS_RHINO_LN.wav**FILED UNDER:** ADVANCED TECHNOLOGICAL R&D>RHINO CHARGE> PERSONAL LOG**TRANSCRIPTION OF AUDIO:**

Five years . . .

[Pause.]

In less than five years, NASA went from “Little Joe II” to one giant leap for mankind and landed on the moon. In less than five years, Robert Noyce graduated from MIT, helped Kilby invent the integrated circuit, and revolutionized computing. In less than five years, Einstein rewrote the laws of gravity, because he just didn’t think they were correct.

And five years is the time I have missed while the world passed me by. They say that a curious mind is never still, but I have been at a complete halt. I am at a disadvantage. But I will make the most of it.

I am grateful to the archives for continuing to pull materials in my absence. They have done well. Their diligence to their duty in continuing a collective research pull because they were never ordered to cease is admirable. This collection will provide me with the broad overview I will need to get back up to speed. To see what my colleagues have done while I was away. To see the trajectory of how we got to the current state of affairs and where we will go from here.

It is as if I anticipated needing a historical record in the event of catastrophe. Perhaps I am clairvoyant? Wouldn’t that be nice?

[Pause.]

It also saddens me that I must continue this work without one of the greatest and innovative minds the world has ever known.

I have my work cut out for me. But I am up to the challenge. We have only just begun.

[End transcription.]



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